DOCUMENT RESUME

ED 200 801 CE 028 671

AUTHOR	McElroy, Jack E.; Thomas, Edward G.
TITLE	The Impact of Kentucky's Staff Exchange Program. Final Report.
INSTITUTION	Kentucky State Dept. of Education, Frankfort.
PUB DATE	81
NOTE	176p.
EDRS PRICE	MF01/PC08 Plus Postage.
DESCRIPTORS	*Experiential Learning; *Faculty Development; Industry; Occupational Information; Program Evaluation; *Program Improvement; *School Business Relationship; Skill Development; Teacher Education; *Teacher Exchange Programs; *Vocational Education Teachers; Work Experience Programs
IDENTIFIERS	Kentucky

ABSTRACT

This two-part project was designed to determine the effectiveness of the staff exchange program in Kentucky. Part 1 of the project involved personal interviews conducted with selected vocational educators who had been involved in the staff exchange program during its six-year history. Also interviewed were the cooperating business and industry personnel who were directly involved in working with the selected educators. Part 2 of the project was conducted through the use of survey questionnaires sent to all educators and administrators who had been involved in the staff exchange program since 1974. Among the findings was that the teachers who were interviewed indicated that the staff exchange experience had had a positive effect on vocational instructional methods. At least half the teachers felt that the selection and/or preparation of instructional materials was better; the ratio of group to individual instruction had changed in a positive direction; more simulation techniques were being used; and the ratio of lab/shop activities to classroom activities had also changed in a positive direction. Teachers perceived the most important outcome of the staff exchange program to be the development of occupational knowledge and skills. (LRA)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

THE IMPACT OF KENTUCKY'S
STAFF EXCHANGE PROGRAM

FINAL REPORT

JACK E. MCELROY
University of Kentucky

and

EDWARD G. THOMAS
Cleveland State University

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

L. Davis

[illegible]O THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

UNIVERSITY OF KENTUCKY
LEXINGTON, KENTUCKY 40506

COLLEGE OF EDUCATION
VOCATIONAL EDUCATION

March 16, 1981

Mr. Robert Spillman
Assistant Superintendent of
  Public Instruction
Bureau of Vocational Education
State Department of Education
Capital Plaza Tower
Frankfort, KY 40601

Dear Mr. Spillman:

Here is the Final Report on the research project to assess the impact of certain aspects of Kentucky's Vocational Staff/Industry Exchange Program. The research was conducted in order to answer five specific questions. The conclusions reached and the resulting recommendations should be helpful to those who are responsible for administering the program in the state. It is hoped that the Staff Exchange Program will be strengthened as a result of the research reported here.

As always, the assistance of several people was necessary for the successful completion of this research effort. I'd like to take this opportunity to express my appreciation.

The Kentucky Staff/Industry Exchange Advisory Committee provided invaluable guidance in the development of various phases of the project.

The Staff Exchange contact persons in seven of Kentucky's vocational regions conducted in-depth interviews with Staff Exchange participants and their cooperating business/industry personnel. The seven regional contact persons who were involved were:

Sam Futrell	Region 1 (Purchase)
Tommy Caskey	Region 2 (Pennyrile)
Frank Buckler	Region 6 (Jefferson)
Karen Hutchinson	Region 9 (Buffalo Trace Gateway)
Charles Wilson	Region 12 (Kentucky River)
Sie Mills, Jr.	Region 13 (Cumberland Valley)
James Zoll	Region 15 (Bluegrass)

Literally hundreds of vocational teachers and administrators and business/industry people completed questionnaires or agreed to be interviewed.

AN EQUAL OPPORTUNITY UNIVERSITY

Dr. Edward G. Thomas of Cleveland State University was the project consultant who assisted in the development of the questionnaires, analyzed the data, and wrote the final report.

Secretarial assistance was provided by Ms. Ellen Grisby, Staff Exchange Project Secretary; Ms. Vickie Rogers, Secretary, Department of Vocational Education, University of Kentucky; and Mrs. Sheila Onkst, Department of Vocational Education, University of Kentucky.

Mr. William Reeves, graduate assistant in the Department of Vocational Education, University of Kentucky, provided assistance in tabulating the results of the mailed questionnaires.

To all of those named above, I give my sincere thanks. Without their efforts, the project could not have been completed.

If you have any questions about the research project or this final report, please contact me. I will be happy to provide additional information.

Sincerely,

Jack E. McElroy

Jack E. McElroy
Project Director

JEMc/so

TABLE OF CONTENTS

Page

LETTER OF TRANSMITTAL ii

LIST OF TABLES vi

LIST OF FIGURES vii

CHAPTER I--INTRODUCTION 1

  A Staff Exchange Program 2
  Kentucky's Staff Exchange Program 3
  Statement of the Problem 6

CHAPTER II--METHODOLOGY 8

  Interviews 8
  Surveys 9
  Data Analysis 10

CHAPTER III--FINDINGS 13

  Part 1 Findings 13
  Part 2 Findings 39

CHAPTER IV--SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS 79

  Summary of Part 1 79
  Summary of Part 2 85
  Conclusions 86
  Recommendations 89

APPENDICES 91

  Appendix A 92
    Educator's Information Sheet
    Educator's Personal Interview Questionnaire
    Business/Industry Questionnaire

  Appendix B 117
    Educator's Questionnaire
    Administrator's Questionnaire

  Appendix C 128
    Response Distribution from the Educator's
    Questionnaire

TABLE OF CONTENTS (Continued)

Page

Appendix D 136
Computation and Classification of Quintiles for Educator Responses on the Importance and Extent Scales

Appendix E 139
Response Distribution from the Administrator's Questionnaire

Appendix F 145
Computation and Classification of Quintiles for Administrator Responses on the Importance and Extent Scales

LIST OF TABLES

Table		Page
1	Categories of Objectives Mentioned by Interviewees	16
2	Student Behaviors Used as Measures of Student Attitudes	24
3	Redistribution of Statements by Categories: Educator's Questionnaire	41
4	Category Ranks on the Two Scales: Educator's Questionnaire	46
5	Order of Outcome Importance as Perceived by Educators	47
6	Order of Extent of Outcome Attainment as Perceived by Educators	52
7	Comparison of Rankings of Outcomes on Importance and Extent Scales for Educators	57
8	Redistribution of Statements by Categories: Administrator's Questionnaire	63
9	Category Ranks on the Two Scales: Administrator's Questionnaire	66
10	Order of Outcome Importance as Perceived by Administrators	68
11	Order of Extent of Outcome Attainment as Perceived by Administrators	71
12	Comparison of Rankings of Outcomes on Importance and Extent Scales for Administrators	75

LIST OF FIGURES

Figure		Page
1	Classification of Interview Questionnaire Items into Topical Areas	18
2	Association of Raw Score Ranges with Response Categories on the Educator's Questionnaire	47
3	Association of Raw Score Ranges with Response Categories on the Administrator's Questionnaire . . .	67

CHAPTER I

INTRODUCTION

The hallmark of the business and industrial world during the past few decades has been the ever-increasing speed with which conditions change. The pressure of competition, the impact of economic conditions, and the ever-increasing introductions of technological advances all contribute to the rate of change. Businesses and industrial firms have to keep up-to-date or suffer the consequences.

Education has been criticized often for failing to keep abreast of conditions in the "real" world. Vocational education, in particular, has received its share of this criticism. Often the criticism has been unjust, but some of the criticism has been warranted. Vocational teachers and administrators have long recognized the need to keep pace with the rapid changes in the business and industrial sector. The problem has always been one of trying to keep current in the face of limited resources for staff development.

The business and industrial sector is concerned with the recruitment, selection, employment, and training of qualified workers. As employers of the graduates of vocational programs, business and industrial leaders face the problem of keeping up-to-date with the changing nature of the educational setting. If they are to really understand and relate to the students who are products of vocational programs, they must know something about the curricula, facilities and equipment, and teaching methodology being utilized in the schools. The problem for those in business and industry has been one of finding a way to learn about vocational education programs while still carrying on the company's main activity--the production of goods and/or services.

What has been needed is some way to provide vocational educators and administrators with access to information about the changing nature of the workplace. Also needed is some way to help business and industrial personnel learn more about the system of vocational education which is training personnel for that rapidly-changing workplace. It really is a matter of providing better communication links between the vocational programs and the businesses and industries which employ the graduates of the programs.

A STAFF EXCHANGE PROGRAM

One means of attacking the problems outlined is through the operation of a Staff Exchange Program. Such a program allows vocational teachers and administrators to gain short-term, up-to-date work experiences. Business and industrial leaders observe the educational process and learn about vocational curricula and instructional procedures. In theory, a communications link is forged which becomes the basis of continuing cooperation between representatives of both sectors.

Vocational personnel benefit in that they are given the opportunity to update their specialized skills and knowledge. They can incorporate their experiences into the curriculum and make their programs more responsive to the needs of students as well as the business and industrial segment of the community.

Business and industrial personnel benefit in that they can gain insight into the educational process which produces potential employees for their firms. They can have an input into the educational system through suggestions concerning curricular content, use of facilities and equipment, and instructional strategies. In addition, they may be able to incorporate current educational practices in their own training programs for upgrading or retraining workers.

Vocational students benefit from the exchange program. The curriculum is more relevant to the existing conditions in the business and industrial world. The teacher has, and can teach, more up-to-date skills, knowledges, and attitudes. The potential employer understands the educational setting and can more easily relate to the student in an employment situation.

Society as a whole benefits because the vocational education programs become more effective and efficient in producing graduates who are qualified for entry-level and higher positions. Inservice training costs go down since new employees come in with higher skill and knowledge levels. These cost savings are passed along to consumers through price reductions or, at least, through smaller price increases. And, since well-trained workers may tend to experience more satisfaction in their jobs, society benefits again.

What has been described here is the rationale for conducting a Staff Exchange Program. Whether the Staff Exchange Program works as well in practice as it does in theory is a major question.

KENTUCKY'S STAFF EXCHANGE PROGRAM

In 1974, the Appalachian Regional Commission funded a project entitled, "Kentucky Appalachian Vocational Staff Exchange Program." The project was designed to aid in the development, demonstration, and evaluation of a vocational staff exchange model which could be used throughout the state to overcome the problems identified earlier. In the program's six years, over 1,000 vocational teachers, over 50 vocational administrators, and over 900 business and industrial firms have been involved in staff exchanges. The program was designed to provide for an exchange of vocational education teachers and administrators with supervisors and technicians from the business and industrial settings where vocational students are being employed.

General goals and more specific objectives for vocational teachers, vocational administrators, and business and industrial leaders are outlined below.

Vocational Teachers

Vocational teachers will develop new vocational skills and techniques relative to the occupational areas for which they are preparing students.

Specific Objectives: At the conclusion of the program, the participating vocational education teachers will be able to:

a. revise their vocational education curricula so that they will reflect current practices in business and industry;

b. perform new skills and techniques at a level expected of the top fifty percent of the related business and industry employees;

c. describe in written form, a comprehensive and systematic plan for initiating and maintaining a working relationship with representatives of business and industry including provisions for:

   1. liaison management structure,

   2. placement for experience programs,

   3. placement for employment, and

   4. advisory committees.

Vocational Administrators

Vocational administrators will work with management personnel to learn accepted management practices. They will also develop plans for establishing and maintaining continuous liaison with business and industry.

Specific Objectives: At the conclusion of the program, the vocational administrators will be able to:

a. implement appropriate management practices in the school system;

b. identify skills which are out-of-date that are being taught in classrooms and shops;

c. plan, initiate, and implement a personnel development program for teachers which will enable the teachers to revise, reorient, and otherwise change their programs to meet the needs of business and industry; and

d. describe in written form, a process for providing a continuous liaison between the vocational school and business and industry including provisions for:

    1. advisory committees,

    2. cooperative work experience, and

    3. student placement.

Business and Industry Representatives

Representatives of business and industry will observe vocational programs in operation and will work with vocational educators in designing more effective educational experiences.

Specific Objectives: At the conclusion of the program, the representatives of business and industry will be able to:

a. identify ways that business and industry can assist the educational agencies to provide relevant occupational education; and

b. identify and put into practice accepted strategies of teaching/learning.

Originally, the Staff Exchange Program was designed to allow vocational teachers and administrators to exchange work stations with skilled technicians and supervisors in business and industry where vocational students are being employed. However, it was determined during the first year of implementation that business and industrial personnel could not leave their positions of responsibility because of production schedules, employer costs, and many other reasons that would not be compatible with their work activities. However, representatives of business and industry identified ways that they could assist the educator in providing relevant occupational education and identified and put into practice accepted strategies of teaching and learning.

Every year a team of third-party evaluators has evaluated the Staff Exchange Program to identify strengths and weaknesses and make recommendations for the improvement of staff exchange activities. The question that exists with the Staff Exchange Program at the present time is: Is it doing the job it was designed to do?

STATEMENT OF THE PROBLEM

In order to answer the question raised above, a research project was designed and carried out during the 1979-80 academic year. The research was designed to answer the following questions:

1. What changes, if any, in vocational instructional methods, curriculum content, evaluation procedures, instructional management procedures, interpersonal relationships, and personal/professional development have taken place as a result of the Staff Exchange Program?
2. What are the opinions of participants regarding the management of the Staff Exchange Program and of the on-the-job experiences provided to them?
3. What involvement, if any, do business and industrial firms have in communicating and working with vocational programs as a result of the Staff Exchange Program?
4. What are the perceptions of teachers and administrators with regard to the importance of potential outcomes of involvement in the Staff Exchange Program?

5. What are the perceptions of teachers and administrators with regard to the extent to which they achieved the outcomes associated with involvement in the Staff Exchange Program?

CHAPTER II

METHODOLOGY

In order to answer the questions stated in Chapter I, a two-part research project was designed. Part 1 of the project involved personal interviews conducted with selected vocational educators who had been involved in the Staff Exchange Program during its six-year history. Also interviewed were the cooperating business and industry personnel who were directly involved in working with the selected educators. In addition, mailed questionnaires were sent to all business and industry personnel who had participated in the program during the six years. Part 2 of the project was conducted through the use of survey questionnaires sent to all educators and administrators who had been involved in the Staff Exchange Program since 1974.

INTERVIEWS

Part 1 of the research project was designed to answer the first three research questions outlined in Chapter I.

The interviews were conducted with vocational educators and their cooperating business/industry people by the Staff Exchange regional contact persons (who were typically the regional Industrial Coordinators). The Staff Exchange contact persons from the 14 vocational education regions in Kentucky attended a one-day workshop to get general training in interviewing and specific training in the use of the interview questionnaires (copies of the two questionnaires and the educators' information sheet are contained in Appendix A). The reason for the workshop was to insure consistency among the interviewers in asking questions and recording answers.

The director of the research project randomly selected ten vocational educators from each region who had been involved in a staff exchange. Also identified were the ten cooperating business/industry people who worked directly with the educators while they (the educators) were actually involved in the business/industry placement. The regional contact persons were asked to personally interview at least five of the vocational educators and the five business/industry people who worked directly with the five educators.

The interviews were conducted during the Spring of 1980. The regional contact persons in 7 of the 14 regions conducted the interviews and submitted the interview questionnaires.

The following regions submitted completed interview questionnaires:

Region 1 -- Purchase
Region 2 -- Pennyrile
Region 6 -- Jefferson
Region 9 -- Buffalo Trace - Gateway
Region 12 -- Kentucky River
Region 13 -- Cumberland Valley
Region 15 -- Bluegrass

As a supplement to the personal interviews, a copy of the Business/Industry questionnaire (See Appendix A) was sent to each cooperating business/industry person. The responses to the questionnaire were mailed back to the project director.

SURVEYS

Part 2 of the research project was designed to answer the remaining two research questions outlined in Chapter I. In order to obtain data relative to these two questions, an Educator's Questionnaire was sent to all the vocational teachers who had been involved in the Staff Exchange Program since 1974, and an Administrator's Questionnaire was sent to all vocational administrators who had participated during the six years. Copies of the two survey instruments are contained in Appendix B.

The Educator's Questionnaire listed some 49 outcomes which could result from a teacher's participation in the Staff Exchange Program. The teachers were asked to respond to two Likert-type scales for each outcome. One five-point scale asked the teachers to indicate how important they felt the particular outcome was to them. The other five-point scale then asked the teachers to rate the same outcome in terms of the extent to which the Staff Exchange Program enabled them to achieve the outcome.

The Administrator's Questionnaire was a shortened and revised version of the Educator's Questionnaire. The instrument contained some 32 outcomes. Again, the dual Likert scales were used so that administrators could indicate the importance of each outcome and the extent to which the Staff Exchange Program enabled them to achieve the outcome.

In all, just over 1,000 survey instruments were sent to teachers and administrators. Some 456 teachers and 23 administrators returned usable questionnaires.

DATA ANALYSIS

Because of the nature of interview data and the number of open-ended items on the Business/Industry Questionnaire, it was necessary to hand tabulate much of the information in Part 1 of the research project. The Educator Interview Questionnaires for each region were grouped together and regional summary sheets were developed so as to consolidate the data somewhat. Answers to open-ended items were also listed on summary sheets.

Then a coding scheme was developed so that the information could be categorized and consolidated further. Data from the Business/Industry Questionnaire (both those mailed to business/industry personnel and those used in the personal interviews) were grouped into four categories (Orientation to the Staff Exchange Program, Evaluation Procedures, Vocational Program Content, and Business/Industry Input to Schools).

For Part 2 of the project, a response distribution, giving percentages of responses for each Likert-scale item on each outcome listed, was developed. Because the Educator's Questionnaire had originally been designed to include groups of items related to Management of Instruction, Organization of Instruction, Methods of Instruction, Professional Development, and Personal Development, the responses to the questionnaire were grouped into the five topical areas. Then the raw scores for each item were totaled and an average score for each topical area was computed. Using the average scores on the "Importance" scale (the responses which indicated the importance of each outcome to the teacher) and the "Extent" scale (the responses which indicated the extent to which outcomes were achieved), the five topical categories were ranked according to "Importance" and "Extent."

In order to determine how the individual outcomes were ranked (relative to "Importance" or "Extent"), a raw score on each scale for each item was computed. This allowed for an ordinal ranking of outcomes. Then, quintiles (K_1, K_2, K_3, etc.) were computed from the raw score data. This procedure allowed for a nearly even distribution of scores among the five categories of possible responses ("Of no importance," "Of little importance," etc.). Thus, the top 20 percent of the raw scores were designated as denoting items perceived to be "Of great importance" to the respondents. The bottom 20 percent of the raw scores were designated as denoting items "Of no importance" to the respondents. Similarly, quintiles were computed on the "Extent" scales and the scores were evenly distributed among the five "Extent" categories ("To no extent," "To little extent," etc.).

CHAPTER III

FINDINGS

The findings of the research study are presented in this Chapter. The results of the data collection for Part 1 are presented first.

PART 1 FINDINGS

Part 1 of the study was designed to answer three questions: (1) What changes, if any, in vocational instructional methods, curriculum content, evaluation procedures, instructional management procedures, interpersonal relationships, and personal/professional development have taken place as a result of the Staff Exchange Program? (2) What are the opinions of participants regarding the management of the Staff Exchange Program and of the on-the-job experiences provided to them? (3) What involvement, if any, do business and industrial firms have in communicating and working with vocational programs as a result of the Staff Exchange Program?

In order to obtain data concerning the first two questions, a random sample of 10 vocational teachers who had participated in the Staff Exchange Program was selected in each of the 14 vocational regions in Kentucky. The regional contact person who works with the Staff Exchange Program in each region was asked to personally interview at least 5 of these teachers (starting at the top of the list of 10 teachers). The findings reported and discussed here resulted from the interview reports submitted by 7 of the 14 regional contact persons. To the extent that the teachers accurately reported on their experiences with the Staff Exchange Program, the data may be relied on for drawing conclusions and making recommendations.

To obtain data concerning the third research question, questionnaires (see Appendix A) were sent to some 900 business and industry representatives who had been directly involved in working with vocational teachers and administrators who were on staff exchange placements in business and industrial firms. Some 258 usable questionnaires were returned. In addition, the regional contact persons who conducted personal interviews with vocational teachers also attempted to interview the corresponding business and industry representatives who had worked directly with the teachers when the teachers were on their staff exchange assignments. The regional contact persons recorded responses from the business/industry interviews on the same type of questionnaire which had been mailed to business/industry personnel. Finally, some data concerning the third question were obtained from the interviews with vocational teachers. Again, to the extent that teachers and business/industry personnel accurately reported their experiences, these data may be used for drawing conclusions and making recommendations.

Findings Related to Research Questions 1 and 2

Profile of Interviewees

Some 35 vocational personnel who had participated in the Staff Exchange Program were interviewed. An Information Sheet (see Appendix A) provided a profile of the interviewees. Approximately half of the educators had been on one staff exchange placement; 19 percent had been on two placements; another 19 percent on three placements; and 12 percent on four placements. Some 28.6 percent had been on a one-week on-the-job placement; 60 percent had been on two-week placements; almost 6 percent on three-week placements; and another 6 percent had engaged in four-week placements. All of the placement sites were within the State of Kentucky.

Approximately half the educators were from the Trade & Industrial service area; almost 15 percent were from Business & Office; approximately 11 percent were from Distributive Education; and approximately 7 percent came from each of the service areas of Home Economics, Health Occupations, and Public Service. Some 20 percent of the educators were vocational administrators or supervisors; the remaining 80 percent were vocational teachers.

The interviewees had quite a range of related occupational work experience. Some 31 percent of the educators had from 1 to 3 years of related work experience (excluding teaching); another 10 percent had from 4 to 6 years of work experience; almost 21 percent had 7 to 9 years of experience; 17 percent had 10 to 13 years of experience; 3 percent had 14 to 17 years of experience; and 17 percent had 18 or more years of related work experience.

Information on Objectives

On the Information Sheet, the interviewees were asked to indicate their major objectives in participating in the Staff Exchange Program. Some 65 objectives were listed by the 35 interviewees. The objectives were categorized into five topical groupings and the results are presented in Table 1.

The percentage figures represent the percent of total responses which were attributed to the five categories (i.e., the number of objectives categorized into an area was divided by the total number of objectives listed).

TABLE 1

CATEGORIES OF OBJECTIVES MENTIONED BY INTERVIEWEES

Category	Number of Responses	% of Responses
Upgrade Occupational Skills and Knowledge	35	53.8%
Increase Knowledge of Employability Standards	14	21.5%
Increase Knowledge of Management Methods	7	10.8%
Gain Information for Revision of Curriculum	5	7.7%
Increase or Update Knowledge of Equipment Used in Occupation	4	6.2%
Totals	65	100.0%

More than half of the responses indicated a desire by the interviewees to improve skills and knowledge in the interviewees' own occupational areas. The second most often mentioned objective was to increase knowledge of the employability standards in the occupations for which the interviewees were preparing students.

Fewer than 8 percent of the responses were related directly to curriculum revision. However, all of the responses are at least indirectly related to course content, teaching methodology, or classroom/shop management techniques.

A follow-up question asked the interviewees to indicate the extent to which they felt their objectives had been accomplished. Some 79.2 percent of the objectives were described as being fully accomplished; another 18.2 percent were described as being partially accomplished; and only 2.6 percent were described as not being accomplished to any extent. The major reasons given for having not accomplished objectives were "not enough time" and "the Business/Industry work schedule (during the staff exchange) did not provide an opportunity to accomplish the objectives."

Basic data related to the first three research questions were gathered during the interviews with the Educator's Personal Interview Questionnaire (see Appendix A). The 53 items were analyzed and classified into nine categories related to the three research questions. In addition, data relative to the third research question were gathered with questionnaires mailed to the cooperating business and industrial persons and through interviews conducted with business/industry personnel.

Figure 1 shows the categorization of the questions from the interview instrument. The questions related to business/industry communication (Nos. 1, 2, 3, and 4) really pertain to the third research question and will be discussed along with the results from the mailed questionnaire which was sent to business/industry representatives and which was used in conducting the interviews with business/industry personnel.

FIGURE 1

CLASSIFICATION OF INTERVIEW QUESTIONNAIRE ITEMS
INTO TOPICAL AREAS

Topical Area	Questionnaire Items
Business/Industry Communications	1, 2, 3, 4
Instructional Methods	5, 6, 7, 8, 9, 11
Curriculum Content	10, 12, 13, 21
Evaluation Procedures	14, 15, 16, 17, 18
Instructional Management Procedures	19, 20, 22, 23, 24, 25, 26
Interpersonal Relationships	27, 28, 29, 30
Personal/Professional Development	31, 32, 33, 34, 35
On-the-Job Experiences	37, 39, 40, 41, 45, 51
Management of Staff Exchange Program	36, 38, 42, 43, 44, 46, 47, 48, 49, 50, 52, 53

Instructional Methods

Question 5 on the Educator's Personal Interview Questionnaire asked whether the teacher's involvement in the Staff Exchange Program had an effect on the selection and/or preparation of instructional materials. Thirty of the 35 interviewees (85.7%) indicated that there had been an effect. New materials had been chosen or prepared by 16 educators (45.7%); old instructional materials had been revised by 9 educators (25.7%); and 5 educators (14.3%) had adapted business/industry materials to classroom or lab or shop use. Those who had changed materials were asked to indicate how much direct involvement business/industry personnel had in the selection or preparation of materials. Some 17.2 percent of the interviewees indicated that they used a lot of business/industry input; another 41.4 percent used some business/industry input; the remainder (41.4%) used on direct input from business/industry personnel.

There were several follow-up questions on the selection, preparation, and/or modification of instructional materials. The educators indicated that new lesson plans or instructional modules were most often developed as a result of the experiences. Next most often developed were new visual aids. Revisions were most often made to lesson plans or instructional modules. Revisions were also made to visual aids, instructional methods, and safety instruction. Business/industry materials were most often adapted for use in lesson planning; such materials were also used in the preparation of visual aids and in instruction about safety. When business/industry personnel were directly involved in changes in instructional methods, they were most often used as advisors regarding changes to help students better meet business/industry job entry requirements; they were next most often used as advisors for the incorporation of up-to-date materials in the curriculum.

Question 6 asked educators whether they had changed their use of field trips as an educational activity. Some 54.5 percent of the educators indicated that they had made no changes in the use of field trips; 15.2 percent of the educators noted that more places for field trips had become available; 12.1 percent indicated that field trip follow-up activities had become more meaningful.

Question 7 asked whether educators had changed the ratio of group to individual instruction as a result of participation in the Staff Exchange Program. Just over one-third (34.5%) of the educators indicated that they were now using more individualized instruction than before; 20.7% indicated that they had achieved a better balance of group to individual instruction; 41.4% had not changed the ratio of group to individual instruction. Only 3.4% indicated that more group instruction was being used.

Question 8 asked whether the educators now use simulation techniques in their classrooms, labs, or shops. Simulation is used to a great extent by 31.0 percent, to a moderate extent by 27.6 percent, and to a minor extent by 24.1 percent. Some 17.2 percent of the educators use no simulation techniques. When asked how the use of simulation had changed since the Staff Exchange experience, 44.8 percent indicated that their use of simulation techniques had not changed. However, 31.0 percent indicated that their use of simulation had changed to a moderate extent (more simulation was being used); 17.2 percent indicated that their use had changed to a minor extent (more simulation was being used). Two educators indicated that less simulation was being used.

Question 9 concerned the ratio of the lab/shop activities to classroom activities. Some 42.3 educators indicated that they had achieved a better balance between lab/shop activities and classroom activities. More lab/shop activities had been incorporated by 19.2 percent; more classroom activities had been incorporated by 3.8 percent. Some 34.6 percent indicated that the ratio had not changed.

Question 11 asked about changes in the use of audio/visual aids in the instructional program. Some 26.7 percent indicated that they had begun using more audio/visual aids; 20.0 percent indicated that they were using audio/visual aids in a better manner; 53.3 percent indicated that their use of audio/visual aids had not changed. Those who had changed their use of audio/visual aids were asked whether they had directly involved business/industry personnel in developing new aids or revising old ones. Some 62.5 percent had used no direct help from business/industry personnel; some involvement was used by 25.0 percent and a lot of involvement was reported by 12.5 percent. Audio/visual aids which were reported most often as being developed after the Staff Exchange experience were slide/tape programs (slide programs with coordinated audio tapes). Business/industry input most often took the form of providing examples of audio/visual materials which could be used in a vocational program.

Curriculum Content

Question 10 asked educators whether they had changed the emphasis on basic skill development compared to specialized skill development. Some 39.3 percent felt they had achieved a better balance between the two; 17.9 percent had begun to emphasize basic skills more; 31.2 percent had begun to emphasize specialized skills more. Only 10.7 percent reported no change in emphasis.

Question 12 concerned up-to-date equipment in the occupational area. Almost three-fourths (73.5%) of the educators indicated that they were placing more emphasis on the identification and use of up-to-date equipment; the remaining 26.5 percent were placing the same emphasis as before on the identification and use of up-to-date equipment. Some 15.2 percent of the interviewees indicated that equipment had been donated to their programs as a result of the Staff Exchange experience. Several educators (18.2%) indicated that new equipment was being purchased by the school as a result of their experience in the Staff Exchange Program.

Question 13 asked the educators whether they had changed their emphasis on speed development versus accuracy development. No change was reported by 48.5 percent. However, 30.3 percent had begun to place more emphasis on accuracy while only 3.0 percent had begun to emphasize speed more. A better balance between the two was reported by 18.2 percent of the interviewees. Some 21.2 percent of the interviewees indicated that they had incorporated business/industry speed and accuracy standards in their classes.

Question 21 concerned the amount of safety instruction being provided to students. Some 32.4 percent of the educators indicated that they had increased the amount of safety instruction as a result of the Staff Exchange experience; none had reduced the amount of safety instruction. The remaining interviewees (67.6%) had not changed their safety instruction. Those who had not changed their level of safety instruction were asked to indicate whether they felt they were paying enough attention to safety instruction. Almost everyone (95.7%) indicated that enough safety instruction was being provided. The quality of safety instruction being given to students was rated by the educators as being excellent (12.9%), better than average (51.6%), average (32.3%), or less than average (3.2%). Virtually all the educators indicated that their safety instruction is up-to-date and in line with business/industry practices and OSHA standards.

Evaluation Procedures

Questions 14-18 on the interview questionnaire were related to the evaluation procedures used in vocational classrooms, labs, and shops. Interviewees were asked (Question 14) whether they had changed their performance standards for manipulative skills as a result of their Staff Exchange experience. Forty percent of the teachers indicated that their performance standards had changed; 60 percent had not changed their standards.

The teachers were also asked if they had changed their performance standards with regard to technical and related knowledge. Some 37.9

percent indicated that they had upgraded such standards; 44.8 percent had made no changes; 13.8 percent indicated that better measures of knowledge attainment had been developed; and 3.4 percent indicated that their standards had been lowered.

Question 16 asked teachers whether they had changed how they state performance objectives. The responses revealed that 12.1 percent of the respondents were in the process of developing performance objectives at the time of the interview. Performance objectives had been developed after the Staff Exchange experience by 15.2 percent of the respondents; another 24.2 percent had developed objectives, but not in written form. Some 21.2 percent had revised previously-developed objectives. Performance objectives had not been developed by 12.1 percent of the respondents. The remaining 15.2 percent indicated that they had made no changes in the way they state performance objectives.

Those who had developed revised performance objectives were asked how closely related the objectives were to business/industry expectations. Eighty percent of the respondents indicated that their performance objectives closely matched business/industry expectations; the remaining 20 percent indicated that their objectives were a "fair" match with business/industry expectations.

The evaluation of student attitudes was the subject of Question 17. All of the respondents indicated that they attempt to evaluate student attitudes (42.1% by written standards and 57.9% by unwritten standards). The respondents were given a list of student behaviors and were asked to indicate which behaviors were used as measures of attitudes. Table 2 presents the results. Attendance and cooperativeness were most often used as measures of student attitudes, followed closely by appearance.

TABLE 2

STUDENT BEHAVIORS USED AS MEASURES OF STUDENT ATTITUDES

Behavior	Percentage of Teachers Using Behavior as Measure of Attitudes*
Attendance	92.1
Cooperativeness	92.1
Appearance	89.5
Work Habits	81.6
Punctuality	78.9

*Since respondents were allowed to indicate more than one behavior, the percentages total more than 100 percent.

Ninety percent of the respondents indicated that they attempt to formally evaluate their own teaching effectiveness (Question 18). Of those who do formal evaluations, 77.8 percent use student evaluations; 22.2 percent use peer evaluations; and 77.8 percent use supervisor's evaluations (since respondents were allowed to indicate more than one evaluation procedure, the responses total more than 100 percent).

Instructional Management Procedures

Seven questions on the interview questionnaire were related to procedures and practices used to manage classroom, laboratory, or shop facilities. None of the respondents had changed the layout of classrooms, labs, or shops after the Staff Exchange experience (Question 19); however, several had made changes with regard to materials and equipment for classrooms, labs, and shops (Question 20). Some 53.5 percent had changed their methods of selecting materials and equipment; 7.1 percent had changed methods of acquiring materials and equipment; 3.6 percent had changed methods of handling materials and equipment; and 7.1 percent had changed methods of storing materials.

The respondents were asked to rate the quality of their classroom management procedures (Question 22). Some 43.3 percent rated their procedures as better than before their Staff Exchange experience; the remaining 56.7 percent rated the quality as the same as before. None of the respondents rated their procedures as worse than before. When asked if they are satisfied with their classroom management practices, 16.7 percent indicated that they were not happy. Some 80.0 percent of the respondents who were not happy with their classroom management practices indicated that they needed to be better organized; the remaining 20.0 percent indicated that they were in the process of revising their procedures.

Question 23 asked respondents to rate the quality of their lab/shop management practices. Just under one-half of the respondents (46.2%) responded that their procedures were better than before the Staff Exchange experience; the remaining 53.8 percent felt that their procedures were the same as before; none of the respondents rated their lab/shop management procedures as worse than before.

Question 24 concerned the quality of classroom/lab/shop maintenance and clean-up procedures. Some 27.3 percent of the respondents felt that maintenance and clean-up procedures were better after the Staff Exchange experience; the remaining 72.7 percent reported that maintenance and clean-up procedures were the same as before. When asked whether they were satisfied with maintenance and clean-up procedures, 35.7 percent indicated that they were not satisfied and that such procedures need to be improved; the remaining 64.3 percent indicated that their maintenance/clean-up procedures were satisfactory.

Changes in the quality of work station layouts were addressed by Question 25. When asked whether the quality of work station layout had changed as a result of the Staff Exchange experience, 13.3 percent of the respondents indicated that the layout was better after the experience; the remaining 86.7 percent perceived no change in the layout. Almost one-half of the respondents (46.2%) indicated some dissatisfaction with their present layouts (generally they felt they had too little space for effective arrangements). The remaining 53.8 percent appeared to be satisfied with their present layouts.

Few changes were noted with regard to security provisions as a result of the Staff Exchange experience (Question 26). Only 3.2 percent of the teachers felt that security provisions (e.g., safeguards against theft, vandalism, etc.) were better after the experience. Some 6.5 percent even rated security provisions as worse after the experience. Security provisions had not changed in the remaining 90.3 percent of the cases. With regard to the level of satisfaction with security provisions, a full 50.0 percent of the respondents professed not to be satisfied with security provisions in their shops/classrooms/labs; the other 50.0 percent were satisfied.

Interpersonal Relationships

Questions 27-30 covered interpersonal relationships with students, peers, supervisors, and subordinates. The participants were asked to indicate whether their relationships with students had changed as a result of the Staff Exchange experience (Question 27). The relationship was rated as better after the experience by 41.2 percent of the respondents; 2.9 percent rated it as worse; 55.9 percent saw no change. Eighty percent of the respondents were satisfied with their relationships with students while the remaining 20.0 percent were not satisfied.

The quality of their relationships with peers had seemed to improve according to 36.4 percent of the participants (Question 28). For the remainder (63.6%), no change was noted. Some 26.7 percent of the respondents stated that they were not satisfied with their relationships with peers ("There is always room for improvement.") while 73.3 percent indicated satisfaction in this area.

Question 29 asked respondents to indicate their perception of the quality of relationships with supervisors (i.e., supervisor, department head, principal, etc.) after the Staff Exchange experience. The relationships were perceived as being better in 36.4 percent of the cases, worse in 3.0 percent, and the same in 60.6 percent. Half of the respondents indicated that they were not happy with their relationships with supervisors and half indicated that they were satisfied.

Ten of the respondents indicated that they did have subordinates (other than students) reporting to them. Forty percent noted an improvement in the quality of relationship with subordinates after the Staff Exchange experience; the remaining 60.0 percent had noted no change.

Personal/Professional Development

Questions 31-35 related to the perceptions of participants concerning their personal or professional development as a result of the Staff Exchange experience. Some 82.4 percent of the respondents indicated that they had developed new occupational skills as a result of the experience (Question 31). Some 94.1 percent indicated that they had developed new areas of occupational knowledge (Question 32). A large majority (85.7%) indicated that they had learned about new types of and/or new uses of materials, tools, and equipment (Question 33). In answer to Question 34, some respondents (21.4%) indicated that they had increased their memberships in professional organizations after the Staff Exchange experience. Finally, respondents who were members of one or more professional organizations were asked to indicate the type of involvement they had in the organizations (Question 35). Twenty-five respondents indicated that they read professional literature; 22 indicated that they attend meetings of professional groups; 13 had served on committees; and eleven had served in leadership positions (i.e., as officers, committee chairpersons, etc.).

On-The-Job Experiences

Six questions related to the experiences of respondents in the on-the-job assignments or placements. All of the respondents (100.0%) indicated that their on-the-job experiences were related to their objectives (Question 37). A majority of the respondents (91.4%) had a combination of experiences (some observation and some hands-on experiences). A few (5.7%) spent all of their time in hands-on experiences and one respondent (2.9%) spent all of the time in observing others (with no hands-on experience at all). Those who had some observation experiences most often observed work procedures; the next most frequent type of observation experience was observing the work habits of employees and the interaction of employees with customers and supervisors. Those who had hands-on experiences most often worked directly with machines; the next most often mentioned area was that of handling paperwork and office routines (maintaining records, completing forms, filing, answering the telephone, etc.). Other hands-on experiences mentioned were: repair and maintenance of equipment; handling of tools and materials; and customer service.

All respondents (100.0%) indicated that the Business/Industry contact person knew how to relate to them (the Business/Industry person knew why the Staff Exchange people were there, what was to be done, etc.) (Question 40). Also, 100.0 percent of the respondents indicated that the cooperating Business/Industry provided them with the opportunity to meet their objectives (Question 41). The Business/Industry contacts provided the opportunity by: letting the Staff Exchange teachers and administrators get hands-on experiences; assigning a supervisor to work with the teachers/administrators; and by giving teachers/administrators an orientation to what the Business/Industry does and how it operates.

Some 75.0 percent of the respondents felt that they had not had enough time during the on-the-job phase of the experiences to achieve all of their objectives (Question 45). In most cases, some objectives were not completed because the production schedule of the cooperating Business/Industry during the Staff Exchange visit was such that a needed experience was simply not scheduled.

Some 62.5 percent of the respondents rated the supervision that they got while in the on-the-job phase of the Staff Exchange experience as excellent (Question 51). The remaining 37.5 percent rated the supervision as good.

Management of Staff Exchange Program

A dozen questions asked for responses about various procedures and practices used in the management of the Staff Exchange Program. One hundred percent of the respondents indicated that they had been properly oriented to the purpose and procedures of the Staff Exchange Program (Question 36). However, only 87.5 percent felt that the cooperating Business/Industry people had properly outlined the duties and responsibilities of the teachers/administrators who were about to enter the on-the-job phase of the Staff Exchange experience (Question 38). Thus, some 12.5 percent felt that the orientation by the Business/Industry was lacking.

Question 42 asked respondents how they would characterize the paperwork required for administering the program. Some 11.4 percent felt that too much paperwork was required; 8.6 percent felt that some of the paperwork was unnecessary. All of the respondents agreed that the paperwork was, for the most part, easy to complete.

All of the respondents (100.0%) indicated that they had known what was to be done at the completion of the work experience phase of the Staff Exchange experience (Question 43). When asked if they had received any help with regard to how to make changes back in the classroom/lab/shop (Question 44), 68.8 percent indicated that they had not received such help. Of those who indicated that they had received such help, 80.0 percent felt that it was "enough" help. Those who had received help most often received such help from the cooperating Teacher Educator; the cooperating Business/Industry personnel were mentioned next most often. Those who had not received help indicated that they needed help in lesson planning, choosing/using equipment, and developing visual aids.

Question 46 asked respondents whether their administrator had helped them to identify their objectives for the Staff Exchange experience. Some 38.7 percent replied that the administrator had given such help; the remaining 61.3 percent had not received such help from the administrator. Of those who had not received help from an administrator in formulating objectives, 57.9 percent indicated that the Staff Exchange contact person in the region (usually the Industrial Coordinator) had provided such help; 5.3 percent had received such help from the cooperating Teacher Educator. Presumably, the remainder received no help from a second party. Those who had received help of some sort rated such help as excellent (45.5%), good (36.4%), or fair (18.2%).

Almost all (97.1%) of the participants had been aware of the possibility of getting college credit for the Staff Exchange experience (Question 47). Some 35.3 percent of the participants did not receive college credit (Question 48). A majority (83.3%) of those who received college credit felt that the amount of work required was appropriate for the amount of credit; the remaining 16.7 percent felt that too much work was required.

All of those who received college credit indicated that the work required for college credit was related to the improvement of instruction (Question 49). Some 41.7 percent of the credit-earning participants had been required to write a report or term paper based on the experience; the remaining 58.3 percent had been required to develop lesson plans or instructional modules.

Question 50 asked respondents to indicate how the Business/Industry placement site had been identified. A majority (73.5%) indicated that they had personally identified the site; the regional Staff Exchange contact person had identified the placement site in 23.5 percent of the cases; the cooperating Teacher Educator identified the site in 2.9 percent of the cases.

Some 63.6 percent of the participants indicated that they were visited on the job by the cooperating Teacher Educator (Question 52). Most of these participants (57.1%) viewed the visit as helpful, either in reinforcing the purpose and objectives of the program or in showing the Business/Industry that the Staff Exchange administrators had a great deal of concern about the success of the experience. The remaining 42.9

percent viewed the visit as not useful or unnecessary. Only 10.0 percent of those who had not been visited by a Teacher Educator indicated that they would have liked to have had such a visit.

Finally, respondents were asked if they had been visited on the job by their immediate supervisor. Only 18.2 percent reported that they had been visited by their supervisor.

Findings Related to Research Question 3

The third research question (stated in Chapter 1) was posed in an attempt to determine what involvement business and industrial firms have in communicating/working with vocational programs as a result of the Staff Exchange Program. Data relative to this research question were collected from business/industry personnel and vocational teachers and administrators, all of whom had been involved in the Staff Exchange Program as business/ industry contact persons, supervisors of vocational personnel during the on-the-job phase, or as those actually participating in a work experience placement. The data reveal perceptions of the various participants concerning the role of business/industry in communicating and working with vocational program staff. Data on perceptions of business/industry personnel were gathered with mailed questionnaires returned by 258 business/industry representatives who had participated directly in the Staff Exchange Program and in interviews with 28 business/ industry representatives. Data on perceptions of vocational teachers/ administrators were collected as a part of the interviews conducted by the Staff Exchange regional contact persons.

Perceptions of Business/Industry Representatives

The Business/Industry Questionnaire contained items related to the orientation procedures, the evaluation form, vocational program content, and business/industry input to schools.

Orientation

Some 220 of the 286 respondents (76.9%) rated the orientation activities as "excellent" or "good." The business/industry supervisor of a Staff Exchange participant was felt to have been properly oriented by 87.8 percent of the respondents. The respondents felt they had personally been well oriented: 70.3 percent felt that they fully understood their Staff Exchange roles; 22.0 percent felt that they had a general understanding of their roles, and only 7.7 percent were unclear about their roles.

The few comments about orientation problems or shortcomings tended to indicate that a few people were never oriented at all, at least they felt that no orientation activities had been undertaken.

Evaluation Form

Respondents were asked to assess the evaluation form used for their evaluation of the Staff Exchange experience. About 82.0 percent felt the form to be neither too general nor too specific. Some 83.5 percent felt the form to be about the right length; 88.3 percent felt the form asked the right questions; and 82.4 percent felt the form was easy to answer.

Vocational Program Content

A large majority (87.4%) of the business/industry respondents felt that what is being taught in vocational programs is appropriate preparation for the graduates coming into their businesses or industries. Several respondents listed shortcomings of the programs. In summary, the comments reflected a feeling among some that vocational training is behind the field (students are not being taught new techniques and how to operate up-to-date equipment); that not enough emphasis is placed on attitudes and work habits; and that vocational preparation is too general, thereby requiring the employer to do additional training.

Over half (67.3%) of the respondents reported that graduates of local vocational education programs work for them or their company. Those who responded that they do employ graduates of local vocational programs were asked to rate the employees in terms of technical competence, overall job knowledge, and attitude toward work and the job.

Some 82.2 percent rated the graduates as having "excellent" or "good" technical competence. None were rated as "poor" while 17.8 percent were rated as "fair." Graduates were rated slightly lower on overall job knowledge: 80.2 percent of the respondents rated graduates as "excellent" or "good"; 19.7 percent rated graduates as "fair"; again, none of the graduates were rated as "poor." The pattern was a bit different when respondents were asked to assess the work attitudes of graduates. Some 86.7 percent felt that graduates had "excellent" or "good" attitudes toward work and the job. However, some respondents (4.7%) rated the graduates as having "poor" attitudes and another 8.7 percent rated their attitudes as "fair." So, on the assessment of attitudes, the combined "excellent-good" rating was higher than for technical competence and overall job knowledge. However, unlike the other two categories, some respondents gave ratings of "poor."

More than three-fourths of the business/industry representatives (77.7%) indicated that they were more willing to hire graduates of the vocational programs after their involvement in the Staff Exchange Program than they were before their involvement. Some 55 of the respondents gave reasons for their answers. Most of the respondents indicated that they were now more willing to hire graduates because they (the business/industry representatives) now have a better understanding of vocational programs and the quality of teaching in vocational schools; also, they felt that vocational teachers and administrators had gained a better understanding of the needs of business and industry. In general, they felt that vocational students were being well trained.

Only a couple of negative comments were received from respondents who indicated that they were not more willing to hire graduates. The comments tended to reflect a feeling that vocational graduates lacked good basic mathematics and writing skills or had poor work attitudes. Most of those who indicated that they were not more willing to hire vocational graduates indicated that they had always been willing to hire such workers and had not changed their attitudes. In other words, they were neither more willing nor less willing.

Business/Industry Input

Respondents were asked to indicate what input they have to the vocational education programs of local schools as a result of involvement in the Staff Exchange Program. The largest number of responses (81) indicated that cooperating business/industry personnel serve on advisory committees in the vocational schools; 41 serve as resource persons; 32 help arrange co-op stations or experiences for students; and 26 help arrange field trips.

Several respondents indicated that they were already involved with local vocational programs. Thus, their input to local schools did not change as a result of their involvement in the Staff Exchange Program.

Of those who have some input, 37.7 percent feel that they now have more involvement with local schools than before; 5.5 percent have less involvement; and 56.8 percent have the same level of involvement as before. Some 87.1 percent of the respondents feel that the Staff Exchange Program has made them more aware of what vocational education is attempting to do in the schools. Some 42 respondents indicated that the Staff Exchange Program had benefited them or their companies. In summary, most of the respondents feel they and their companies now have a better understanding of vocational education programs and the quality of graduates. Many mentioned that the Staff Exchange Program has provided new sources of prospective employees. In general, the respondents felt everyone had benefited from an exchange of ideas and information.

Respondents were offered a list of ways in which they could serve as resource persons to help vocational educators. The largest number of respondents (111) indicated that they would be willing to help in identifying needed changes in the vocational program; 100 respondents would help in the instructional program by speaking to students, arranging field trips, etc. Thirty-three respondents indicated a willingness to help design new layouts for classrooms, labs, and shops and a like number would help in rewriting the curriculum.

A large majority (82.1%) of the respondents were interested in having more overall contact with the local vocational education programs. The reason most often mentioned was that they employ the graduates of such programs. Other often-mentioned reasons were the enjoyment of working with young people, company plans to employ graduates in the future, and company plans to offer co-op positions. Several (45) respondents indicated that their companies encourage them to be involved in such activities.

There was also an interest in more overall contact because of an interest in part-time teaching in vocational programs.

Finally, respondents were asked to give additional comments on how the Staff Exchange Program could be improved. Most of the comments received here were much more general comments about the program. Few specific suggestions for improvement were offered. Those who did suggest improvements tended to believe that the program should be expanded to serve more programs and to give teachers more on-the-job experiences. One respondent felt that the vocational personnel should offer more advice to the cooperating business/industry (such as advice on how to improve in-house training programs).

Perceptions of Vocational Teachers/Administrators

Data concerning how vocational education personnel perceived the role of business/industry in working with vocational programs were collected in Questions 1-4 of the Educator's Personal Interview Questionnaire.

Respondents were asked whether there was more business/industry involvement on advisory committees after the Staff Exchange than before (Question 1). The largest number of respondents (13) indicated that more business/industry people had become involved. Several indicated that it was now easier to recruit committee members than before; several also indicated that the quality of input was better at committee meetings. However, 12 respondents indicated that the involvement of business/industry people was not as good as before the Staff Exchange experience.

Since the time that they had participated in the on-the-job portion of the Staff Exchange, 82.4 percent of the educators had had visits or contacts from business/industry personnel (Question 2). The most common type of contact was a telephone conversation to exchange ideas (mentioned by ten of the respondents); six teachers had been visited in the classroom by business/industry personnel. Four business/ industry representatives had spoken to classes; a like number contacted educators with regard to recruiting employees from among the vocational students at the school.

Educators were asked whether the Staff Exchange Program had affected the placement of graduates (Question 3). Twelve educators felt that there were more job opportunities as a result; five felt there were better quality job opportunities. None of the respondents felt there were fewer or lower quality job opportunities as a result. Some 13 responded that there had been no change in the number or quality of job opportunities.

Question 4 asked educators what effect the Staff Exchange Program had had on the placement of students in co-op positions. Ten educators felt that more co-op positions were available while three felt that better quality positions were available. Most respondents (16) had noted no change in the number or quality of co-op positions available. None of the respondents reported that fewer positions were available or that lower quality positions were available.

PART 2 FINDINGS

Part 2 of the study was designed to answer the two questions about the perceived importance and extent of achievement of outcomes of the Staff Exchange Program according to the vocational educators and administrators (Questions 4 and 5 from Chapter 1 of this report).

Vocational Educators

The Educator's Questionnaire was sent to approximately 1,000 vocational teachers who had participated in the Staff Exchange Program during its six-year history. Usable responses were received from 456 teachers.

The distribution of responses is presented in tabular form in Appendix C. The response distribution is in terms of percentages of responses to each item on both scales (Perceived Importance of Outcomes and Perceived Extent of Attainment of Outcomes). The items are listed in the same order in which the items appeared in the Educator's Questionnaire.

In order to determine the relative rankings of various categories of items on the questionnaire, the survey instrument was analyzed to identify items associated with various topical areas. Six topical areas were so identified. They were: Skills Development, Organization of Instruction, Management of Instruction, Methods of Instruction, Professional Development, and Personal Development.

After the topical areas had been identified, the items associated with a particular area were grouped together and a raw score for each area was developed for each scale (Importance and Extent of Attainment). The raw scores were arrived at by assigning a range of values from 1 to 5 for the possible responses on the Likert Scale. For example, on the scale of Perceived Importance of Outcomes, a value of 1 was assigned to the response "Of no importance"; a value of 5 was assigned to the response "Of great importance." Similarly, values from 1 to 5 were assigned to the responses on the Extent of Attainment Scale ("To no extent" - 1; "To great extent" - 5).

The frequency distribution of responses was plotted against the response values. Then the frequencies were multiplied by the response values and the totals for each possible response to an item were added together to yield a raw score on the item. This procedure was followed on all items for both scales. Finally, an average raw score was computed for each topical area by adding up the raw scores of all items associated with a topical area and dividing that total by the number of items associated with the topical area.

Table 3 presents the results of this redistribution of items according to topical areas or categories. An analysis of Table 3 led to a ranking of the categories according to the perceived importance of the categories of outcomes and the perceptions of vocational teachers with regard to the extent to which they felt they had attained the outcomes as a result of their participation in the Staff Exchange Program. The rankings were based on the average raw scores for each of the six categories on each of the two scales. The category with the highest average raw score on the Importance Scale was assigned a rank of 1; the category with the lowest raw score on the scale was assigned a rank of 6. The same procedure was followed on the Extent of Attainment Scale. Table 4 presents the results of the ranking procedure.

As Table 4 clearly shows, there is a perfect positive correlation (using a rank order correlation method) between the perceived importance of a category of outcomes and the perceived extent of attainment of the category of outcomes. Teachers perceived that they attained the most important outcomes to the greatest extent and the least important outcomes to the least extent.

TABLE 3

REDISTRIBUTION OF STATEMENTS BY CATEGORIES

Educator's Questionnaire

Original Survey #	Statement	Raw Score Imp.	Raw Score Ext.	Category Average Imp.	Category Average Ext.
SKILLS DEVELOPMENT					
1	Helps teacher increase level of manipulative skills in the occupational (vocational) area.	402	364		
2	Helps teacher increase level of technical knowledge of the occupational area.	441	400		
		843	764	421.5	382
ORGANIZATION OF INSTRUCTION					
3	Helps teacher in revision of total vocational curriculum.	372	329		
4	Helps teacher in revision of specific vocational courses.	381	350		
5	Helps teacher in revision of daily lesson plans and/or modules.	349	320		
20	Helps teacher increase contact with Business/Industry personnel for placement of Co-op students and graduates.	427	387		
31	Helps teacher develop better written performance objectives.	338	285		
		1,867	1,671	373.4	334.2
MANAGEMENT OF INSTRUCTION					
6	Helps teacher identify new equipment used in the occupational area.	443	441		
7	Helps teacher acquire new equipment and supplies for the classroom, lab, or shop.	351	260		

TABLE 3 (Continued)

Original Survey #	Statement	Raw Score Imp.	Raw Score Ext.	Category Average Imp.	Category Average Ext.
8	Helps teacher identify new uses of equipment in the occupational area.	401	304		
11	Helps teacher identify facilities (rooms, fixtures, etc.) used in the occupational area.	340	316		
12	Helps teacher acquire such facilities for the classroom, lab, or shop.	307	241		
13	Helps teacher improve the physical layout of equipment and facilities in the classroom, lab, or shop.	322	274		
14	Helps teacher improve the maintenance of equipment and facilities of the classroom, lab, or shop.	318	263		
15	Helps teacher improve security techniques and provisions in the classroom, lab, or shop.	287	243		
16	Helps teacher improve safety instruction in the classroom, lab, or shop.	354	308		
17	Helps teacher improve clean-up operations in the classroom, lab, or shop.	295	248		
19	Helps teacher increase use of Business/Industry personnel on advisory committees and/or in classroom activities.	440	408		
24	Helps teacher improve ratio of laboratory (or shop) activity to classroom activity.	328	280		
25	Helps teacher improve ratio of basic skill development to specialized skill development.	333	307		

TABLE 3 (Continued)

Original Survey #	Statement	Raw Score Imp.	Raw Score Ext.	Category Average Imp.	Category Average Ext.
27	Helps teacher improve the balance between an emphasis on speed and an emphasis on accuracy.	379	330		
28	Helps teacher establish better performance standards for technical skill areas.	399	359		
29	Helps teacher establish better performance standards for technical knowledge areas.	401	362		
		5,698	4,914	356.1	307.1
METHODS OF INSTRUCTION					
9	Helps teacher change the ways in which equipment is used in the classroom, lab, or shop.	378	320		
10	Helps teacher identify instructional materials used in occupational areas.	372	347		
21	Helps teacher increase use of field trips in the occupational program.	365	329		
22	Helps teacher improve the ratio of group to individual instruction.	301	243		
23	Helps teacher provide leadership training for advanced students.	341	306		
26	Helps teacher improve techniques and increase use of audio/visual aids in the instructional program.	325	264		
30	Helps teacher establish better performance standards for related areas.	371	326		
32	Helps teacher develop better techniques for evaluating attitudes	372	319		
		2,825	2,454	353.1	306.8

TABLE 3 (Continued)

Original Survey #	Statement	Raw Score		Category Average	
		Imp.	Ext.	Imp.	Ext.
PROFESSIONAL DEVELOPMENT					
33	Helps teacher develop better techniques for evaluating his or her own performance.	392	349		
34a	Membership in professional/ technical organizations.	306	240		
34b	Attendance at professional/ technical organizational meetings.	312	255		
34c	Service on committees or professional/technical organizations.	312	239		
34d	Service in a leadership position (officer, committee chairperson, etc.) of professional/technical organizations.	299	232		
34e	Reading of professional/technical publications.	357	296		
		1,978	1,611	329.7	268.5
PERSONAL DEVELOPMENT					
18	Helps teacher increase contact and involvement with Business/ Industry personnel.	457	436		
35a	Becoming more inquisitive about things in general.	383	350		
35b	Becoming more dedicated to serving students and the school.	397	345		
35c	Becoming more concerned with planning things well.	400	348		
35d	Becoming more motivated to return to school to gain additional knowledge.	389	340		
35e	Becoming more receptive to constructive criticism.	379	322		

TABLE 3 (Continued)

Original Survey #	Statement	Raw Score Imp.	Raw Score Ext.	Category Average Imp.	Category Average Ext.
35f	Becoming more receptive to suggestions from others.	399	347		
35g	Becoming more understanding about the problems of others.	400	343		
35h	Becoming more concerned with developing a better relationship with students.	398	339		
35i	Becoming more concerned with developing a better relationship with peers.	396	341		
35j	Becoming more concerned with developing a better relationship with superiors.	395	335		
35k	Becoming more concerned with developing a better relationship with subordinates.	383	328		
		4,776	4,174	398.0	347.8

Some caution must be used in interpreting the rankings in Table 4. The category called "Skills Development" consisted of only two items. All of the other categories had five or more items. Thus, the Skills Development category may contain too few items for an average raw score to be meaningful. Regardless of this condition, however, the other categories still have the same relative ranks on each scale and the perfect positive correlation still holds.

In order to determine how the individual outcomes ranked regarding their relative importance and the relative extent to which the outcomes were perceived to have been obtained, the data were analyzed again.

TABLE 4

CATEGORY RANKS ON THE TWO SCALES

Educator's Questionnaire

Rank		Category
Importance	Extent	
1	1	Skills Development
2	2	Personal Development
3	3	Organization of Instruction
4	4	Management of Instruction
5	5	Methods of Instruction
6	6	Professional Development

As was done in determining the rankings of categories of outcomes, values ranging from 1 to 5 were assigned to the responses on the two scales for each questionnaire item. Then raw scores were developed by multiplying the frequency of responses by the assigned value. Then the 49 outcomes were listed in descending order by raw scores (i.e., the item with the highest raw score was listed first, then the item with the next highest raw score was listed, and so on). Then quintiles were computed using the raw score data for the items listed in descending rank order. Appendix D contains information concerning the determination of the quintiles for the Importance Scale and the Extent Scale. Each quintile was then assigned a designation corresponding to the possible responses on the original survey. Figure 2 presents the information about the raw score ranges on both scales which were designated as corresponding to responses from the Educator's Questionnaire.

After the determination and classification of quintiles had been completed, it was possible to then identify the outcomes which were perceived to be most important, next most important, etc. Table 5 presents this information for the Importance Scale.

FIGURE 2

ASSOCIATION OF RAW SCORE RANGES WITH RESPONSE CATEGORIES ON THE EDUCATOR'S QUESTIONNAIRE

IMPORTANCE SCALE

Raw Score Range	# of Actual Raw Scores in Range	Correspondence to Original Survey
K_5 Below 321.7	9	Of no importance
K_4 321.8-356.3	10	Of little importance
K_3 356.4-381.9	10	Of some importance
K_2 382-399.6	10	Of cons. importance
K_1 Above 399.6	10	Of great importance

EXTENT SCALE

Raw Score Range	# of Actual Raw Scores in Range	Correspondence to Original Survey
K_5 Below 262.9	9	Of no extent
K_4 263-313.3	10	To little extent
K_3 313.4-332.5	10	To some extent
K_2 332.6-349.6	10	To cons. extent
K_1 Above 349.6	10	To great extent

TABLE 5

ORDER OF OUTCOME IMPORTANCE AS PERCEIVED BY EDUCATORS

Rank	Survey #	Statement	Raw Score
*(Denotes tied ranks)			
		OF GREAT IMPORTANCE	
1	18	Helps teacher increase contact and involvement with Business/Industry personnel.	457
2	6	Helps teacher identify new equipment used in the occupational area.	443
3	2	Helps teacher increase level of technical knowledge of the occupational area.	441

TABLE 5 (Continued)

Rank	Survey #	Statement	Raw Score
4	19	Helps teacher increase use of Business/Industry personnel on advisory committees and/or in classroom activities.	440
5	20	Helps teacher increase contact with Business/Industry personnel for placement of Co-op students and graduates.	427
6	1	Helps teacher increase level of manipulative skills in the occupational (vocational) area.	402
7.5*	29	Helps teacher establish better performance standards for technical knowledge areas.	401
7.5*	8	Helps teacher identify new uses of equipment in the occupational area.	401
9.5*	35g	Becoming more understanding about the problems of others.	400
9.5*	35c	Becoming more concerned with planning things well.	400
		OF CONSIDERABLE IMPORTANCE	
11.5*	35f	Becoming more receptive to suggestions from others.	399
11.5*	28	Helps teacher establish better performance standards for technical skill areas.	399
13	35h	Becoming more concerned with developing a better relationship with students.	398
14	35b	Becoming more dedicated to serving students and the school.	397
15	35i	Becoming more concerned with developing a better relationship with peers.	396

TABLE 5 (Continued)

Rank	Survey #	Statement	Raw Score
16	35j	Becoming more concerned with developing a better relationship with superiors.	395
17	33	Helps teacher develop better techniques for evaluating his or her own performance.	392
18	35d	Service in a leadership position (officer, committee chairperson, etc.) of professional/technical organizations.	389
19.5*	35k	Becoming more concerned with developing a better relationship with subordinates.	383
19.5*	35a	Becoming more inquisitive about things in general.	383
		OF SOME IMPORTANCE	
21	4	Helps teacher in revision of specific vocational courses.	381
22.5*	27	Helps teacher improve the balance between an emphasis on speed and an emphasis on accuracy.	379
22.5*	35e	Becoming more receptive to constructive criticism.	379
24	9	Helps teacher change the ways in which equipment is used in the classroom, lab, or shop.	378
26*	3	Helps teacher in revision of total vocational curriculum.	372
26*	10	Helps teacher identify instructional materials used in occupational areas.	372
26*	32	Helps teacher develop better techniques for evaluating attitudes.	372

TABLE 5 (Continued)

Rank	Survey #	Statement	Raw Score
28	30	Helps teacher establish better performance standards for related areas.	371
29	21	Helps teacher increase use of field trips in the occupational program.	365
30	34e	Reading of professional/technical publications.	357
		OF LITTLE IMPORTANCE	
31	16	Helps teacher improve safety instruction in the classroom, lab, or shop.	354
32	7	Helps teacher acquire new equipment and supplies for the classroom, lab, or shop.	351
33	5	Helps teacher in revision of daily lesson plans and/or modules.	349
34	23	Helps teacher provide leadership training for advanced students.	341
35	11	Helps teacher identify facilities (rooms, fixtures, etc.) used in the occupational area.	340
36	31	Helps teacher develop better written performance objectives.	338
37	25	Helps teacher improve ratio of basic skill development to specialized skill development.	333
38	24	Helps teacher improve ratio of laboratory (or shop) activity to classroom activity.	328
39	26	Helps teacher improve techniques and increase use of audio/visual aids in the instructional program.	325
40	13	Helps teacher improve the physical layout of equipment and facilities in the classroom, lab, or shop.	322

TABLE 5 (Continued)

Rank	Survey #	Statement	Raw Score
		OF NO IMPORTANCE	
41	14	Helps teacher improve the maintenance of equipment and facilities of the classroom, lab, or shop.	318
42.5*	34b	Attendance at professional/ technical organizational meetings.	312
42.5*	34c	Service on committees or professional/technical organizations.	312
44	12	Helps teacher acquire such facilities for the classroom, lab, or shop.	307
45	34a	Membership in professional/technical organizations.	306
46	22	Helps teacher improve the ratio of group to individual instruction.	301
47	34d	Service in a leadership position (officer, committee chairperson, etc.) of professional/technical organizations.	299
48	17	Helps teacher improve clean-up operations in the classroom, lab, or shop.	295
49	15	Helps teacher improve security techniques and provisions in the classroom, lab, or shop.	287

Table 6 contains the same type of information regarding the findings on the Extent Scale. Again, this scale represents the extent to which the educators felt they had attained the outcomes listed on the questionnaire as a result of their participation in the Staff Exchange Program.

TABLE 6

ORDER OF EXTENT OF OUTCOME ATTAINMENT AS PERCEIVED BY EDUCATORS

Rank	Survey #	Statement	Raw Score
*(Denotes tied ranks)			
		TO GREAT EXTENT	
1	18	Helps teacher increase contact and involvement with Business/Industry personnel.	436
2	6	Helps teacher identify new equipment used in the occupational area.	411
3	19	Helps teacher increase use of Business/Industry personnel on advisory committees and/or in classroom activities.	408
4	2	Helps teacher increase level of technical knowledge of the occupational area.	400
5	20	Helps teacher increase contact with Business/Industry personnel for placement of Co-op students and graduates.	387
6	1	Helps teacher increase level of manipulative skills in the occupational (vocational) area.	364
7	29	Helps teacher establish better performance standards for technical knowledge areas.	362
8	28	Helps teacher establish better performance standards for technical skill areas.	359
9.5*	4	Helps teacher in revision of specific vocational courses.	350
9.5*	35a	Becoming more inquisitive about things in general.	350
		TO CONSIDERABLE EXTENT	
11	33	Helps teacher develop better techniques for evaluating his or her own performance.	349

TABLE 6 (Continued)

Rank	Survey #	Statement	Raw Score
12	35c	Becoming more concerned with planning things well.	348
13.5*	10	Helps teacher identify instructional materials used in occupational areas.	347
13.5*	35f	Becoming more receptive to suggestions from others.	347
15	35b	Becoming more dedicated to serving students and the school.	345
16	35g	Becoming more understanding about the problems of others.	343
17	35i	Becoming more concerned with developing a better relationship with peers.	341
18	35d	Becoming more motivated to return to school to gain additional knowledge.	340
19	35h	Becoming more concerned with developing a better relationship with students.	339
20	35j	Becoming more concerned with developing a better relationship with superiors.	335
		TO SOME EXTENT	
21	27	Helps teacher improve the balance between an emphasis on speed and an emphasis on accuracy.	330
22.5*	3	Helps teacher in revision of total vocational curriculum.	329
22.5*	21	Helps teacher increase use of field trips in the occupational program.	329
24	35k	Becoming more concerned with developing a better relationship with subordinates.	328

TABLE 6 (Continued)

Rank	Survey #	Statement	Raw Score
24	35k	Becoming more concerned with developing a better relationship with subordinates.	328
25	30	Helps teacher establish better performance standards for related areas.	326
26	35e	Becoming more receptive to constructive criticism.	322
27.5*	9	Helps teacher change the ways in which equipment is used in the classroom, lab, or shop.	320
27.5*	5	Helps teacher in revision of daily lesson plans and/or modules.	320
29	32	Helps teacher develop better techniques for evaluating attitudes.	319
30	11	Helps teacher identify facilities (room, fixtures, etc.) used in the occupational area.	316
		TO LITTLE EXTENT	
31	16	Helps teacher improve safety instruction in the classroom, lab, or shop.	308
32	25	Helps teacher improve ratio of basic skill development to specialized skill development.	307
33	23	Helps teacher provide leadership training for advanced students.	306
34	8	Helps teacher identify new uses of equipment in the occupational area.	304
35	34e	Reading of professional/technical publications.	296
36	31	Helps teacher develop better written performance objectives.	285

TABLE 6 (Continued)

Rank	Survey #	Statement	Raw Score
37	24	Helps teacher improve ratio or laboratory (or shop) activity to classroom activity.	280
38	13	Helps teacher improve the physical layout of equipment and facilities in the classroom, lab, or shop.	274
39	26	Helps teacher improve techniques and increase use of audio/visual aids in the instructional program.	264
40	14	Helps teacher improve the maintenance of equipment and facilities of the classroom, lab, or shop.	263
		TO NO EXTENT	
41	7	Helps teacher acquire new equipment and supplies for the classroom, lab, or shop.	260
42	34b	Attendance at professional/technical organizational meetings.	255
43	17	Helps teacher improve clean-up questions in the classroom, lab, or shop.	248
44.5*	15	Helps teacher improve security techniques and provisions in the classroom, lab, or shop.	243
46	12	Helps teacher acquire such facilities for the classroom, lab, or shop.	241
47	34a	Membership in professional/technical organizations.	240
48	34c	Service on committees or professional/technical organizations.	239
49	34d	Service in a leadership position (officer, committee chairperson, etc.) of professional/technical organizations.	232

In order to determine congruence between perceptions of importance and the extent of attainment of outcomes, the outcome item ranks on the two scales were combined and compared directly. Table 7 presents this comparison, noting those items for which the differences between ranks are significant.

There were significant differences on six outcomes. The second most important outcome (according to the teachers) was attained as a result of the Staff Exchange Program only "to a little extent." The outcome ranked in the first quintile as to importance, but only in the fourth quintile as to the extent of attainment. A similar pattern was observed for the seventh most important outcome (actual rank was 7.5 due to a tie).

Further down the list with respect to perceived importance, the pattern reverses with less important outcomes being listed as having been achieved to a greater extent than their perceived importance would appear to warrant.

Overall, the ranks were not significantly different on 43 of the 49 outcomes.

TABLE 7

COMPARISON OF RANKINGS OF OUTCOMES ON IMPORTANCE AND EXTENT SCALES FOR EDUCATORS

Importance Rank	Extent Rank	Survey #	Statement	Importance K	Extent K
*(Denotes significant difference)					
1	1	18	Helps teacher increase contact and involvement with Business/Industry personnel.	1	1
2	31*	16	Helps teacher improve safety instruction in the classroom, lab, or shop.	1	4
3	4	2	Helps teacher increase level of technical knowledge of the occupational area.	1	1
4	3	19	Helps teacher increase use of Business/Industry personnel on advisory committees and/or in classroom activities.	1	1
5	5	20	Helps teacher increase contact with Business/Industry personnel for placement of Co-op students and graduates.	1	1
6	6	1	Helps teacher increase level of manipulative skills in the occupational (vocational) area.	1	1
7.5	34*	8	Helps teacher identify new uses of equipment in the occupational area.	1	4
7.5	7	29	Helps teacher establish better performance standards for technical knowledge areas.	1	1

TABLE 7 (Continued)

Importance Rank	Extent Rank	Survey #	Statement	Importance K	Extent K
9.5	9.5	35g	Becoming more understanding about the problems of others.	1	1
9.5	12	35c	Becoming more concerned with planning things well.	1	2
11.5	13.5	35f	Becoming more receptive to suggestions from others.	2	2
11.5	8	28	Helps teacher establish better performance standards for technical skill areas.	2	1
13	19	35h	Becoming more concerned with developing a better relationship with students.	2	2
14	15	35b	Becoming more dedicated to serving students and the school.	2	2
15	17	35i	Becoming more concerned with developing a better relationship with peers.	2	2
16	20	35j	Becoming more concerned with developing a better relationship with superiors.	2	2
17	11	33	Helps teacher develop better techniques for evaluating his or her own performance.	2	2
18	18	35d	Becoming more motivated to return to school to gain additional knowledge.	2	2
19.5	24	35k	Becoming more concerned with developing a better relationship with subordinates.	2	3

TABLE 7 (Continued)

Importance Rank	Extent Rank	Survey #	Statement	Importance K	Extent K
19.5	47*	35a	Becoming more inquisitive about things in general.	2	5
21	9.5*	4	Helps teacher in revision of specific vocational courses.	3	1
22.5	21	27	Helps teacher improve the balance between an emphasis on speed and an emphasis on accuracy.	3	3
22.5	26	35e	Becoming more receptive to suggestions from others.	3	3
24	27.5	9	Helps teacher change the ways in which equipment is used in the classroom, lab, or shop.	3	3
26	22.5	3	Helps teacher in revision of total vocational curriculum.	3	3
26	13.5*	10	Helps teacher identify instructional materials used in occupational areas.	3	2
26	29	32	Helps teacher develop better techniques for evaluating attitudes.	3	3
28	25	30	Helps teacher establish better performance standards for related areas.	3	3
29	22.5	21	Helps teacher increase use of field trips in the occupational program.	3	3
30	35	34e	Reading of professional/technical publications.	3	4

TABLE 7 (Continued)

Importance Rank	Extent Rank	Survey #	Statement	Importance K	Extent K
31	31	16	Helps teacher improve safety instruction in the classroom, lab, or shop.	4	4
32	41*	7	Helps teacher acquire new equipment and supplies for the classroom, lab, or shop.	4	5
33	27.5	5	Helps teacher in revision of daily lesson plans and/or modules.	4	3
34	33	23	Helps teacher provide leadership training for advanced students.	4	4
35	30	11	Helps teacher identify facilities (rooms, fixtures, etc.) used in the occupational area.	4	3
36	36	31	Helps teacher develop better written performance objectives.	4	4
37	32	25	Helps teacher improve ratio of basic skill development to specialized skill development.	4	4
38	37	24	Helps teacher improve ratio of laboratory (or shop) activity to classroom activity.	4	4
39	39	26	Helps teacher improve techniques and increase use of audio/visual aids in the instructional program.	4	4

TABLE 7 (Continued)

Importance Rank	Extent Rank	Survey #	Statement	Importance K	Extent K
40	38	13	Helps teacher improve the physical layout of equipment and facilities of the classroom, lab, or shop.	4	4
41	40	14	Helps teacher improve the maintenance of equipment and facilities of the classroom, lab, or shop.	5	4
42.5	42	34b	Attendance at professional/technical organizational meetings.	5	5
42.5	48	34c	Service on committees or professional/technical organizations.	5	5
44	46	12	Helps teacher acquire such facilities for the classroom, lab, or shop.	5	5
45	47	34a	Membership in professional/technical organizations.	5	5
46	44.5	22	Helps teacher improve the ratio of group to individual instruction.	5	5
47	49	34d	Service in a leadership position (officer, committee chairperson, etc.) of professional/technical organizations.	5	5
48	43	17	Helps teacher improve clean-up operation in the classroom, lab, or shop.	5	5
49	44.5	15	Helps teacher improve security techniques and provisions in the classroom, lab, or shop.	5	5

Vocational Administrators

A shortened, revised version of the Educator's Questionnaire was sent to approximately 50 vocational administrators who had participated in the Staff Exchange Program. Some 23 of the administrators returned usable questionnaires.

The questionnaire data were tabulated and analyzed with procedures identical to the ones employed in the data analysis for educators. The distribution of responses to the Administrator's Questionnaire is presented in Appendix E.

Five categories of items were identified through an analysis of the Administrator's Questionnaire: Management of Instruction, Organization of Instruction, Methods of Instruction, Professional Development, and Personal Development. The outcome items were grouped by the topical areas listed above and an average raw score was computed in the same manner as was done with the Educator's Questionnaire data. Table 8 presents the results of this redistribution of outcome items.

An analysis of Table 8 led to a ranking of the categories according to the perceived importance of the categories of outcomes and the perceptions of the vocational administrators with regard to the extent to which they felt they had attained the outcomes as a result of their participation in the Staff Exchange Program.

As Table 9 shows, the most important outcome was also the outcome which administrators felt they had attained to the greatest extent. The second most important outcome ranked second in terms of extent of attainment. However, this category (Methods of Instruction) contained only two items; therefore, caution must be used in interpreting the rankings of the category due to the fact that all the other categories consisted of six or more items.

TABLE 8

REDISTRIBUTION OF STATEMENTS BY CATEGORIES

Administrator's Questionnaire

Original Survey #	Statement	Raw Score		Category Average	
		Imp.	Ext.	Imp.	Ext.
MANAGEMENT OF INSTRUCTION					
1	Helps administrator assist in revision of total vocational curriculum.	377	384		
2	Helps administrator identify new pieces of equipment used in various occupational areas.	417	314		
3	Helps administrator acquire new equipment and materials for the classroom, lab, or shop.	264	276		
7	Helps administrator improve safety instruction in the classroom, lab, or shop.	361	296		
8	Helps administrator improve clean-up operations in the classroom, lab, or shop.	290	255		
10	Helps administrator increase use of Business/Industry personnel on advisory committees and/or in classroom activities.	419	389		
		2,128	1,914	354.6	319
ORGANIZATION OF INSTRUCTION					
4	Helps administrator identify facilities (rooms, fixtures, etc.) used in various occupational areas.	366	312		
5	Helps administrator improve the physical layout of equipment and facilities in the classroom, lab, or shop.	335	287		
6	Helps administrator improve security techniques and provisions in the classroom, lab, or shop.	290	238		

TABLE 8 (Continued)

Original Survey #	Statement	Raw Score Imp.	Raw Score Ext.	Category Average Imp.	Category Average Ext.
12	Helps administrator assist teacher in establishing better performance standards for technical skill areas.	401	351		
13	Helps administrator assist teacher in establishing better performance standards for technical knowledge areas.	413	343		
11	Helps administrator increase contact with Business/Industry personnel for placement of graduates and/or co-op students.	394	330		
		2,199	1,861	366.5	310
METHODS OF INSTRUCTION					
15	Helps administrator assist teacher in developing better techniques for evaluating attitudes.	403	347		
14	Helps administrator assist teacher in establishing better performance standards for related areas.	388	332		
		791	679	395.5	339.5
PROFESSIONAL DEVELOPMENT					
16	Helps administrator develop better techniques for evaluating his or her own performance.	423	325		
17a	Membership in professional/technical organizations.	365	275		
17b	Attendance at professional/technical organizational meetings.	362	300		
17c	Service on committees of professional/technical organizations.	372	304		
17d	Service in a leadership position (officer, committee chairperson, etc.) of professional/technical organizations.	360	319		

TABLE 8 (Continued)

Original Survey #	Statement	Raw Score Imp.	Raw Score Ext.	Category Average Imp.	Category Average Ext.
17e	Reading of professional/technical publications.	365 3,247	296 1,819	374.5	303
PERSONAL DEVELOPMENT					
18a	Becoming more inquisitive about things in general.	413	378		
18b	Becoming more dedicated to serving students and the school.	420	302		
18c	Becoming more concerned with planning things well.	432	370		
18d	Becoming more motivated to return to school to gain additional knowledge.	419	388		
18e	Becoming more receptive to constructive criticism.	387	326		
18f	Becoming more receptive to suggestions from others.	409	356		
18g	Becoming more understanding about the problems of others.	441	396		
18h	Becoming more concerned with developing a better relationship with students.	399	318		
18i	Becoming more concerned with developing a better relationship with peers.	414	379		
18j	Becoming more concerned with developing a better relationship with superiors.	410	381		
18k	Becoming more concerned with developing a better relationship with subordinates.	426	362		
9	Helps administrator increase contact and involvement with Business/Industry personnel.	450 5,020	413 4,299	418.3	359.1

TABLE 9

CATEGORY RANKS ON THE TWO SCALES

Administrator's Questionnaire

Rank		Category
Importance	Extent	
1	1	Personal Development
2	2	Methods of Instruction
3	5	Professional Development
4	4	Organization of Instruction
5	3	Management of Instruction

The third most important category (Professional Development) ranked last on the Extent Scale. Apparently, administrators felt that they had attained the professional development outcomes to a lesser extent than they had attained other outcomes. Organization of Instruction ranked fourth on both scales. The least important category of outcomes for administrators (Management of Instruction) ranked third in terms of the extent to which the outcomes had been attained.

The data were analyzed in a different way in order to determine how the individual outcomes ranked regarding their relative importance and the relative extent to which the outcomes were perceived to have been attained. The analysis was conducted in the same manner as was done for the data from the Educator's Questionnaire. Individual raw scores were computed for each item and were then used to divide the 32 items into quintiles. Appendix F contains information concerning the determination of the quintiles for the Importance Scale and the Extent Scale.

After the quintiles had been computed, the quintiles were given designations corresponding to the response categories for each scale. Figure 3 presents the information about the raw score ranges on both scales which were designated as corresponding to responses from the Administrator's Questionnaire. Table 10 presents the outcomes from the Importance Scale arranged in the quintiles computed as described above.

FIGURE 3

ASSOCIATION OF RAW SCORE RANGES WITH RESPONSE CATEGORIES ON THE ADMINISTRATOR'S QUESTIONNAIRE

IMPORTANCE SCALE

Raw Score Range	# of Actual Raw Scores in Range	Correspondence to Original Survey
K_5 Below 361.9	6	Of no importance
K_4 361.9-385.5	6	Of little importance
K_3 385.6-409.7	7	Of some importance
K_2 409.8-419.1	7	Of cons. importance
K_1 Above 419.1	6	Of great importance

EXTENT SCALE

Raw Score Range	# of Actual Raw Scores in Range	Correspondence to Original Survey
K_5 Below 293.8	5	To no extent
K_4 293.8-319.3	8	To little extent
K_3 319.4-344.3	6	To some extent
K_2 344.4-378.8	6	To cons. extent
K_1 Above 378.8	7	To great extent

TABLE 10

ORDER OF OUTCOME IMPORTANCE AS PERCEIVED BY ADMINISTRATORS

Rank	Survey #	Statement	Raw Score
*(Denotes tied ranks)			
		OF GREAT IMPORTANCE	
1	9	Helps administrator increase contact and involvement with Business/Industry personnel.	450
2	18g	Becoming more understanding about the problems of others.	441
3	18c	Becoming more concerned with planning things well.	432
4	18k	Becoming more concerned with developing a better relationship with subordinates.	426
5	16	Helps administrator develop better techniques for evaluating his or her own performance.	423
6	18b	Becoming more dedicated to serving students and the school.	420
		OF CONSIDERABLE IMPORTANCE	
7.5*	18d	Becoming more motivated to return to school to gain additional knowledge.	419
7.5*	10	Helps administrator increase use of Business/Industry personnel on advisory committees and/or in classroom activities.	419
9	2	Helps administrator identify new pieces of equipment used in various occupational areas.	417
10	18i	Becoming more concerned with developing a better relationship with peers.	414

TABLE 10 (Continued)

Rank	Survey #	Statement	Raw Score
11.5*	13	Helps administrator assist teacher in establishing better performance standards for technical knowledge areas.	413
11.5*	18a	Becoming more inquisitive about things in general.	413
13	18j	Becoming more concerned with developing a better relationship with superiors.	410
		OF SOME IMPORTANCE	
14	18f	Becoming more receptive to suggestions from others.	409
15	15	Helps administrator assist teacher in developing better techniques for evaluating attitudes.	403
16	12	Helps administrator assist teacher in establishing better performance standards for technical skill areas.	401
17	18h	Becoming more concerned with developing a better relationship with students.	399
18	11	Helps administrator increase contact with Business/Industry personnel for placement of graduates and/or co-op students.	394
19	14	Helps administrator assist teacher in establishing better performance standards for related areas.	388
20	18e	Becoming more receptive to constructive criticism.	387
		OF LITTLE IMPORTANCE	
21	1	Helps administrator assist in revision of total vocational curriculum.	377

TABLE 10 (Continued)

Rank	Survey #	Statement	Raw Score
22	17c	Service on committees of professional/technical organizations.	372
23	4	Helps administrator identify facilities (rooms, fixtures, etc.) used in various occupational areas.	366
24.5*	17e	Reading of professional/technical publications.	365
24.5*	17a	Membership in professional/ technical organization.	365
26	17b	Attendance at professional/ technical organizational meetings.	362
		OF NO IMPORTANCE	
27	7	Helps administrator improve safety instruction in the classroom, lab, or shop.	361
28	17d	Service in a leadership position (officer, committee chairperson, etc.) of professional/technical organizations.	360
29	5	Helps administrator improve the physical layout of equipment and facilities in the classroom, lab, or shop.	335
30.5*	6	Helps administrator improve security techniques and provisions in the classroom, lab, or shop.	290
30.5*	8	Helps administrator improve clean-up operations in the classroom, lab, or shop.	290
32	3	Helps administrator acquire new equipment and materials for the classroom, lab, or shop.	264

Table 11 contains the same type of information regarding the findings on the Extent Scale.

TABLE 11

ORDER OF EXTENT OF OUTCOME ATTAINMENT AS PERCEIVED BY ADMINISTRATORS

Rank	Survey #	Statement	Raw Score
*(Denotes tied ranks)			
		TO GREAT EXTENT	
1	9	Helps administrator increase contact and involvement with Business/Industry personnel.	413
2	18g	Becoming more understanding about the problems of others.	396
3	10	Helps administrator increase use of Business/Industry personnel on advisory committees and/or in classroom activities.	389
4	16	Helps administrator develop better techniques for evaluating his or her own performance.	385
5	1	Helps administrator assist in revision of total vocational curriculum.	385
6.5*	18c	Becoming more concerned with planning things well.	379
6.5*	18i	Becoming more concerned with developing a better relationship with peers.	379
		TO CONSIDERABLE EXTENT	
8	18a	Becoming more inquisitive about things in general.	378
9.5*	18b	Becoming more dedicated to serving students and the school.	362
9.5*	18k	Becoming more concerned with developing a better relationship with subordinates.	362
11	18f	Becoming more receptive to suggestions from others.	356

TABLE 11 (Continued)

Rank	Survey #	Statement	Raw Score
12	12	Helps administrator assist teacher in establishing better performance standards for technical skill areas.	351
13	15	Helps administrator assist teacher in developing better techniques for evaluating attitudes.	347
		TO SOME EXTENT	
14	13	Helps administrator assist teacher in establishing better performance standards for technical knowledge areas.	343
15	18d	Becoming more motivated to return to school to gain additional knowledge.	339
16	14	Helps administrator assist teacher in establishing better performance standards for related areas.	332
17	11	Helps administrator increase contact with Business/Industry personnel for placement of graduates and/or co-op students.	330
18	18e	Becoming more receptive to constructive criticism.	326
19	18j	Becoming more concerned with developing a better relationship with supervisors.	321
		TO LITTLE EXTENT	
20	17d	Service in a leadership position (officer, committee chairperson, etc.) of professional/technical organizations.	319
21	18d	Becoming more concerned with developing a better relationship with students.	318

TABLE 11 (Continued)

Rank	Survey #	Statement	Raw Score
22	2	Helps administrator identify new pieces of equipment used in various occupational areas.	314
23	4	Helps administrator identify facilities (rooms, fixtures, etc.) used in various occupational areas.	312
24	17c	Service on committees of professional/technical organizations.	304
25	17b	Attendance at professional/technical organizational meetings.	300
26.5*	17e	Reading of professional/technical publications.	296
26.5*	7	Helps administrator improve safety instruction in the classroom, lab, or shop.	296
		TO NO EXTENT	
28	5	Helps administrator improve the physical layout of equipment and facilities in the classroom, lab, or shop.	287
29	17a	Membership in professional/technical organization.	275
30	3	Helps administrator acquire new equipment and materials for the classroom, lab, or shop.	273
31	8	Helps administrator improve clean-up operations in the classroom, lab, or shop.	255
32	6	Helps administrator improve security techniques and provisions in the classroom, lab, or shop.	238

A direct comparison of the outcome item ranks on the two scales was accomplished by incorporating the two scales in one table (Table 12).

Table 12 allows for a determination of the congruence between perceptions of importance and perceptions of the extent to which outcomes were obtained. The table also indicates the items for which the differences between ranks are significant.

There were significant differences on four outcomes. The seventh most important outcome (actually the rank is 7.5 due to a tie) was ranked fifteenth in terms of the extent of attainment. The ninth most important outcome ranked twenty-second in terms of extent of attainment. In both cases it appears that administrators felt they had not attained the outcome to the extent that its relative importance would appear to warrant. In the other two cases where there was a significant difference, the pattern was reversed. The administrators felt they had attained outcomes to a greater extent than the importance rankings would appear to warrant. Overall, the ranks of the outcomes were not significantly different on 28 of the 32 items.

TABLE 12

COMPARISON OF RANKINGS OF OUTCOMES ON IMPORTANCE AND EXTENT SCALES FOR ADMINISTRATORS

Importance Rank	Extent Rank	Survey #	Statement	Importance K	Extent K
*(Denotes significant difference)					
1	1	9	Helps administrator increase contact and involvement with Business/Industry personnel.	1	1
2	2	18g	Becoming more understanding about the problems of others.	1	1
3	6.5	18c	Becoming more concerned with planning things well.	1	1
4	9.5	18k	Becoming more concerned with developing a better relationship with subordinates.	1	2
5	4	16	Helps administrator develop better techniques for evaluating his or her own performance.	1	1
6	9.5	18b	Becoming more dedicated to serving students and the school.	1	2
7.5	15*	18d	Becoming more motivated to return to school to gain additional knowledge.	2	3
7.5	10	3	Helps administrator acquire new equipment and materials for the classroom, lab, or shop.	1	2
9	22*	2	Helps administrator identify new pieces of equipment used in various occupational areas.	2	4

TABLE 12 (Continued)

Importance Rank	Extent Rank	Survey #	Statement	Importance K	Extent K
10	6.5	18i	Becoming more concerned with developing a better relationship with peers.	2	1
11.5	14	13	Helps administrator assist teacher in establishing better performance standards for technical knowledge areas.	2	3
13	19	18j	Becoming more concerned with developing a better relationship with supervisors.	2	3
14	11	18f	Becoming more receptive to suggestions from others.	3	2
15	13	15	Helps administrator assist teacher in developing better techniques for evaluating attitudes.	3	2
16	12	12	Helps administrator assist teacher in establishing better performance standards for technical skill areas.	3	2
17	21	18h	Becoming more concerned with developing a better relationship with students.	3	4
18	17	11	Helps administrator increase contact with Business/ Industry personnel for placement of graduates and/or co-op students.	3	3
19	16	14	Helps administrator assist teacher in establishing better performance standards for related areas.	3	3
20	18	18e	Becoming more receptive to constructive criticism.	3	3

TABLE 12 (Continued)

Importance Rank	Extent Rank	Survey #	Statement	Importance K	Extent K
20	18	18e	Becoming more receptive to constructive criticism.	3	3
21	5*	1	Helps administrator assist in revision of total vocational curriculum.	4	1
22	24	17c	Service on committees of professional/technical organizations.	4	4
23	23	4	Helps administrator identify facilities (rooms, fixtures, etc.) used in various occupational areas.	4	4
24.5	26.5	17e	Reading of professional/technical publications.	4	4
24.5	29	17a	Membership in professional/technical organization.	4	5
26	25	17b	Attendance at professional/technical organizational meetings.	4	4
27	26.5	7	Helps administrator improve safety instruction in the classroom, lab, or shop.	5	4
28	20*	17d	Service in a leadership position (officer, committee chairperson, etc.) of professional/technical organizations.	5	4
29	28	5	Helps administrator improve the physical layout of equipment and facilities in the classroom, lab, or shop.	5	5

TABLE 12 (Continued)

Importance Rank	Extent Rank	Survey #	Statement	Importance K	Extent K
30.5	32	6	Helps administrator improve security techniques and provisions in the classroom, lab, or shop.	5	5
30.5	31	8	Helps administrator improve clean-up operations in the classroom, lab, or shop.	5	5

CHAPTER IV

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This chapter presents a summary of the findings, states the conclusions reached, and recommends actions to be taken. The Summary section is divided so that the two parts of the study may be treated seriously.

SUMMARY OF PART I

Part 1 of the study was designed to answer three questions:

1. What changes, if any, in vocational instructional methods, curriculum content, evaluation procedures, instructional management procedures, interpersonal relationships, and personal/professional development have taken place as a result of the Staff Exchange Program?
2. What are the opinions of participants regarding the management of the Staff Exchange Program and of the on-the-job experiences provided to them?
3. What involvement, if any, do business and industrial firms have in communicating and working with vocational programs as a result of the Staff Exchange Program?

Question 1--Changes

The teachers who were interviewed indicated that the Staff Exchange experience had had a positive effect on vocational instructional methods. At least half the teachers felt that: (1) the selection and/or preparation of instructional materials was better; (2) the ratio of group to individual instruction had changed in a positive direction; (3) more simulation techniques were being used; and (4) the ratio of lab/shop activities to classroom activities had changed in a positive direction.

Perceptions of the impact of the Staff Exchange experience on the content of the vocational curriculum were also assessed. The teachers felt that the experience had caused them to change the curriculum in the following ways: (1) the emphasis on basic skill development versus specialized skill development had changed (chiefly to emphasize specialized skill development more or to achieve a better balance between the two); (2) there was much more emphasis on the identification and use of up-to-date equipment; and (3) the emphasis on speed development versus accuracy development had changed (chiefly to place more emphasis on accuracy or to develop a better balance between the two).

The effect of the Staff Exchange experience on evaluation procedures was less pronounced. Fewer than half of the teachers had changed performance standards for manipulative skills as a result of their participation in the Staff Exchange Program. Just over one-half of the teachers had changed performance standards for technical and related knowledge areas. A majority of the teachers had developed or revised performance objectives after the Staff Exchange experience, although over one-fourth of the teachers had either developed no objectives or had not revised previously-developed objectives.

With regard to instructional management procedures, the Staff Exchange experience apparently had little effect. Fewer than one-half of the teachers perceived their classroom management procedures to be better after the experience. Likewise, fewer than one-half rated their lab/shop management practices as better after the Staff Exchange experience. None of the teachers had changed classroom/lab/shop layouts. Almost three-fourths of the teachers had not changed maintenance and clean-up procedures; over 90 percent had not changed security provisions. While it appears that the Staff Exchange experience caused few changes to be made, the question is raised: Are changes necessary or desired?

The answer is that changes were not perceived to be necessary or desired, based on the answers to questions about how satisfied instructors were with their instructional management procedures. Only 16.7 percent of the teachers professed to being unhappy with their classroom management procedures; only 35.7 percent were not satisfied with maintenance and clean-up procedures. Fewer than half the teachers were dissatisfied with work station layouts; however, 50.0 percent of the instructors were not satisfied with security provisions.

Overall, it appeared that teachers were not overly concerned with management procedures. Only 10.8 percent of the teachers had listed an "increase in knowledge of management methods" (see Table 1) as being an objective for participating in the Staff Exchange Program. Thus, their level of satisfaction with their current management procedures may have been fairly high before their Staff Exchange experiences and the level appeared not to change much as a result.

The Staff Exchange experience appeared not to have much of an impact on participant relationships with students, peers, supervisors, and subordinates. Fewer than half the participants rated their relationships in each of those four areas as better after their participation in the Staff Exchange Program. How satisfied were they with their relationships? Eighty percent were satisfied with relationships with students; 73.3 percent were satisfied with relationships with peers. However, only 50.0 percent were satisfied with relationships with supervisors; few of the respondents had subordinates reporting to them.

The participants perceived their Staff Exchange experience as having a positive impact on their personal and professional development. Over

80.0 percent had developed new occupational skills; over 90.0 percent had developed new areas of occupational knowledge; over 85.0 percent had learned about new types of and/or uses of materials, tools, and equipment. There was a reported increase in membership in professional organizations after the Staff Exchange experience. The perceived increase in occupational skills and knowledge is important since that was the objective mentioned most often (see Table 1) by the teachers when they were asked to list their major objectives for participating in the Staff Exchange Program.

Question 2--Management of Staff Exchange

Participant opinions about the on-the-job experiences provided them and the adequacy of the management of the Staff Exchange Program were also assessed.

All of the participants indicated that their on-the-job experiences were related to their objectives; likewise, all participants indicated that their Business/Industry contact persons knew how to relate to them during the on-the-job phase; all participants also indicated that the Business/Industry contacts provided them with the opportunity to meet their objectives. All participants rated the supervision they received from the Business/Industry as good or excellent.

However, 75.0 percent of the participants felt that they had not had enough time during the on-the-job phase to achieve all of their objectives to their satisfaction.

All of the participants indicated that they had been properly oriented to the purpose and procedures of the Staff Exchange Program and almost 90.0 percent felt the Business/Industry people had properly outlined the duties and responsibilities of the participants as they were about to enter the on-the-job phase.

The paperwork required for their Staff Exchange participation was rated as being easy to complete; only about 10.0 percent felt that too much paperwork was required or that some of the paperwork was unnecessary.

Although all of the participants had known what was to be done at the completion of the on-the-job phase, almost 70.0 percent indicated that they had not received help with regard to how to make changes back in the classroom/lab/shop. Where such help was received, it most often came from the cooperating Teacher Educator or the cooperating Business/Industry personnel.

More than 60.0 percent of the participants had received no help from their immediate supervisor in identifying the objectives for the Staff Exchange experience. Those who had not received help from their administrators tended to turn to the regional Staff Exchange contact person or the cooperating Teacher Educator for such help.

Almost 65.0 percent of the participants signed up for college credit for the Staff Exchange experience. More than 80.0 percent of those who did receive college credit felt that the work required to receive such credit was appropriate and all of those who received credit indicated that the work required was related to the improvement of instruction.

Almost three-fourths of the participants had identified their placement sites themselves. In the other cases, the placement site was identified by the regional Staff Exchange contact person or the cooperating Teacher Educator. Over 60.0 percent of the participants were visited on the job by the cooperating Teacher Education and more than half of those felt the visit was helpful. Just over 18.0 percent of the participants had been visited on the job by their immediate supervisor.

Question 3--Business/Industry Involvement

The effect of the Staff Exchange Program relative to the involvement of business and industrial firms in communicating and working with vocational programs was the focus of the third research question. Data were collected from Business/Industry personnel and the participating teachers and administrators.

Business/Industry personnel most often have direct input to vocational programs through their membership on advisory committees or by serving as resource persons. More than 35.0 percent felt that their involvement with vocational programs was greater after the Staff Exchange participation than it was before. Over 87.0 percent felt that the experience made them more aware of the role of vocational education in the schools. More than 80.0 percent were interested in having more overall contact with local vocational education programs.

The participating teachers/administrators were divided somewhat on the question of whether there was more Business/Industry involvement on advisory committees after the Staff Exchange experience. Barely half felt that more Business/Industry people have become involved while almost one-half felt that the participation was not as good as before.

Since the time that they had participated in the on-the-job portion of the Staff Exchange, over 80.0 percent of the educators had had visits or contacts from Business/Industry personnel (usually through a telephone conversation). Many teachers felt that there were more job opportunities or better opportunities for graduates as a result of the Staff Exchange; likewise, many felt that more co-op positions or better quality co-op positions were available to students after the Staff Exchange experience. None of the respondents felt that fewer or lower quality job opportunities or co-op positions were offered after the Staff Exchange experience.

SUMMARY OF PART 2

Part 2 of the study was designed to answer two questions (research questions 4 and 5):

4. What are the perceptions of teachers and administrators with regard to the importance of potential outcomes of involvement in the Staff Exchange Program?
5. What are their perceptions of teachers and administrators with regard to the extent to which they achieved the outcomes associated with the involvement in the Staff Exchange Program?

Data were gathered from 456 teachers and 23 vocational administrators.

Question 4--Outcome Importance

The educators (teachers) perceived the most important outcome of the Staff Exchange Program to be the development of occupational knowledge and skills. Next most important was personal development, followed by organization of instruction, management of instruction, and methods of instruction. The least important outcome was perceived to be professional development.

The administrators rated personal development as the most important outcome of their involvement in the Staff Exchange Program. Next most important was methods of instruction, followed by professional development and organization of instruction. The least important outcome related to management of instruction.

Question 5--Extent of Attainment

The vocational teachers were asked to indicate to what extent they felt they had attained their objectives. The teachers perceived that they had achieved their objectives to the greatest extent in the occupational knowledge and skills development area. The area where achievement was perceived to be next highest was personal development, followed by organization of instruction, management of instruction, and methods of instruction. They felt they had obtained their objectives to the least extent in the professional development area. There was a perfect positive rank order correlation between the perceived importance of outcomes and the perceived extent of attainment of outcomes. When individual outcomes (rather than topical groupings of outcomes) were considered, few significant differences were noted between the perceived importance of outcomes and the perceived extent of attainment of the outcomes.

The administrators did not exhibit a perfect positive rank order correlation between the perceived importance of outcomes and the perceived extent of attainment of outcomes. The administrators did perceive that they had achieved their objectives to the greatest extent in the personal development area (which they had noted as the most important outcome). The second most important outcome area (method of instruction) was also rated as the area where attainment was second highest. However, the area which ranked as third in terms of attainment (management of instruction) had been ranked last in terms of importance. The administrators also perceived that they had achieved least in professional development, the area which they had rated as third most important in terms of outcomes. The organization of instruction area was ranked fourth on both scales. When individual outcomes were considered, few significant differences were noted between the perceived importance of the outcomes and the perceived extent of attainment of the outcomes.

CONCLUSIONS

The following conclusions are based on the findings of this study and are related directly to the five research questions originally presented.

Question 1--Changes

1. The Staff Exchange experience had a positive effect on the vocational instructional methods used by participants as evidenced by the testimony presented by teachers.

2. The Staff Exchange experience had a positive effect on the content of the vocational curriculum as evidenced by the testimony of teachers.

3. The Staff Exchange experience has a positive effect on evaluation procedures in technical and related knowledge areas, but considerably less effect on evaluation procedures in manipulative skills areas as evidenced by the testimony of teachers.

4. The Staff Exchange Program had little effect on instructional management procedures as evidenced by testimony of teachers.

5. The Staff Exchange Program had little effect on the interpersonal relationships of teachers with students, peers, supervisors, and subordinates as evidenced by the testimony of teachers.

6. The Staff Exchange Program had a positive effect on the personal and professional development of teachers as evidenced by their testimony.

Question 2--Management of Staff Exchange

7. The Staff Exchange Program provides on-the-job experiences directly related to the objectives which teachers had formulated as evidenced by the testimony of teachers.

8. The orientation program provided to participants is basically sound, as evidenced by testimony from teachers, administrators, and Business/Industry personnel

9. The supervision of participants in the on-the-job phase by Business/Industry personnel is generally good as evidenced by the testimony of participating vocational teachers and administrators.

10. Not enough time is provided during the on-the-job phase to insure that participants achieve all their objectives to a reasonable extent as evidenced by the testimony of vocational teachers and administrators.

11. The paperwork required for the Staff Exchange Program is largely necessary and easy to complete as evidenced by the testimony of vocational teachers and administrators.

12. Participants in the on-the-job phase do not receive much help in making changes back in the classroom/lab/shop as evidenced by the testimony of teachers.

13. Participants in the on-the-job phase do not receive much help from their immediate supervisors in formulating objectives for their Staff Exchange experiences as evidenced by the testimony of vocational teachers and administrators.

14. The work required of those who register for college credit for the Staff Exchange Program is appropriate and related to the improvement of instruction as evidenced by testimony of vocational teachers and administrators.

15. Placement sites for the on-the-job phase are largely identified by the participants themselves as evidenced by the testimony of teachers and administrators.

16. Most participants are visited during the on-the-job phase by the cooperating teacher educator but few are visited by their immediate supervisors as evidenced by testimony of vocational teachers and administrators.

Question 3--Business/Industry Involvement

17. The Staff Exchange Program increased the awareness of Business/Industry personnel about the role of vocational education in the schools as evidenced by testimony from participating Business/Industry personnel.

18. The Staff Exchange Program appeared not to greatly increase the input of Business/Industry personnel to vocational programs as evidenced by the testimony of vocational teachers and administrators and Business/Industry personnel. However, such input appears to have been in existence prior to the Staff Exchange Program.

19. An overwhelming majority of Business/Industry personnel are interested in having more contact with local vocational education programs as evidenced by testimony of Business/Industry participants.

Question 4--Outcome Importance

20. Teachers perceived the most important outcome of the Staff Exchange Program to be the development of occupational knowledge and skills.

21. Vocational administrators perceived the most important outcome of the Staff Eschange Program to be personal development.

Question 5--Extent of Attainment

22. Teachers perceived that they had achieved their objectives to the greatest extent in the occupational knowledge and skills development area.

23. Vocational administrators perceived that they had achieved their objectives to the greatest extent in the personal development area.

24. There was a high degree of congruence between the perceived importance of outcomes and the perceived extent of attainment of outcomes in the vocational teacher group.

25. There was a moderate degree of congruence between the perceived importance of outcomes and the perceived extent of attainment of outcomes in the vocational administrator group.

RECOMMENDATIONS

The following major recommendations are based on the conclusions reached in this study and should be considered when changes are made in the Staff Exchange Program procedures.

1. The Staff Exchange Program should be continued in the State of Kentucky (with some modifications) since the program seems to be accomplishing its major objectives.

2. The Staff Exchange objective of helping teachers and administrators improve management procedures should be examined since the evidence provided by teachers and administrators suggests that the Staff Exchange Program had little effect on instructional management procedures. It is possible that currently-used procedures are adequate; therefore, no changes are needed. Or it is possible that the Staff Exchange experience did not provide enough information about management procedures; therefore, more attention to management procedures in the on-the-job phase may be warranted.

3. More time should be provided during the on-the-job phase to insure that participants are provided opportunities to achieve all their objectives. Perhaps participants should be required (or encouraged) to develop long-range and short-range objectives and participate in the on-the-job phase more than once in order to achieve the objectives over a period of time.

4. Participants (teachers and administrators) in the on-the-job phase should be given more help in making changes back in the classroom/lab/shop.

5. Participants in the on-the-job phase should be given more help by their immediate supervisors in formulating objectives and using the Staff Exchange experiences in making changes in the classroom/lab/shop.

6. The practice of allowing participants to register for college credit should be continued. This seems to be one way of insuring that the objectives related to curriculum change are incorporated in the classroom/lab/shop (through the development of course materials, etc., for submission to the participating Teacher Educator).

7. The participants' immediate supervisors should be required (or encouraged) to visit participants during the on-the-job phase in order to better understand the Staff Exchange experience and to better determine how the experience can be used to make changes in the instructional program.

8. Some method for increasing contact between the local vocational education program and Business/Industry personnel should be identified and implemented. An overwhelming majority of the Business/Industry people desire this. Perhaps a new communication channel or device needs to be developed.

APPENDICES

APPENDIX A

- Educator's Information Sheet
- Educator's Personal Interview Questionnaire
- Business/Industry Questionnaire

INFORMATION SHEET

1. How many times have you participated in the Staff Exchange Program?

__________ times

If you have participated in more than one Staff Exchange experience, please consider your experience in the most recent exchange when answering the remainder of this questionnaire.

2. How many weeks were you involved in the actual on-the-job portion of the Staff Exchange?

_____ One week
_____ Two weeks
_____ Three weeks
_____ Four weeks

_____ days (Please specify) ________________

3. Was your placement site in-state or out-of-state?

_____ In Kentucky
_____ Out-of-state (Please specify the state) ______________

4. What is your vocational service area?

_____ Agriculture
_____ Business & Office
_____ Distributive Education
_____ Home Economics
_____ Health Occupations
_____ Technical
_____ Trade & Industrial
_____ Vocational Guidance
_____ Related Instruction
_____ Other __________________

5. Was your position at the time of the most recent Staff Exchange an administrative/supervisory one or a teaching position?

_____ Administrative/Supervisory (give title)

____

_____ Teaching (List subject(s) taught)

____

How many years prior to your exchange experience were you working in industry?

__________ years

6. How many years of full-time and part-time related occupational work experience (excluding teaching) did you have prior to your Staff Exchange experience?

Full-time related work experience _____ years.
Part-time related work experience _____ years.

7. Why did you get involved in the Staff Exchange Program? (Please check only the most important reason to you.)

_____ My supervisor asked me to.
_____ I wanted to upgrade my job skills.
_____ I wanted to change the curriculum.
_____ I wanted to learn about newer developments, equipment/ tools/materials used in my occupational area.
_____ I wanted to develop contacts for placement of my graduates.
_____ I wanted to develop contacts for co-op jobs for my students.
_____ I wanted to get college credit for the experience.
_____ Other (Please describe) ______________________________
____
____

8. What was your major objective(s) in participating in staff exchange? Please list objective(s) below:

1. ____
____

2. ____
____

3. ____
____

9. To what extent did you accomplish your objective(s)? (Please check ( ) in appropriate section)

	Accomplished	Some degree of Accomplishment	Did not Accomplish
Objective #1			
Objective #2			
Objective #3			

NOTE: If you did not accomplish your objectives, please answer question 10.

10. The main reason my objectives were not accomplished was:

_____ Not enough time
_____ B/I did not provide me an opportunity to meet objectives
_____ B/I work schedule (during my staff exchange) did not provide me an opportunity to accomplish my objectives
_____ Lack of supervision
_____ Other ____

Personal Interview Questionnaire: This questionnaire can be used for in-depth interviews (with a random sample) of teachers and/or administrators who have participated in the staff exchange program.

NOTE: The personal interview will be used as a basis of confirming the validating written questionnaire responses in terms of program outcomes.

These questions have been organized into eight categories that relate to the following staff exchange activities:

1. B/I Involvement
2. Instructional Planning
3. Instructional Execution
4. Evaluation of Instruction
5. Instructional Management
6. Personal and Professional Relationships
7. Management of Staff Exchange Programs
8. On-the-Job Activities

QUESTIONNAIRE ON THE STAFF EXCHANGE PROGRAM

Business/Industry Involvement

1. Do you now have more business/industry involvement on advisory committees than you had before the Staff Exchange experience? (Check all which apply)

    _____ More business/industry people are involved
    _____ It is easier to recruit committee members
    _____ Attendance at committee meetings is better
    _____ Participation (input) at committee meetings is better
    _____ The involvement of business/industry personnel is about the same as before
    _____ The involvement of business/industry personnel is not as good as before

2. Have you involved business/industry personnel in writing or revising occupational analyses, job descriptions, and/or career materials?

    Yes _____ No _____

    If "Yes," what specifically was done?

    ____

    ____

    ____

    How many business/industry people were involved? ______________

    How were the business/industry people involved? ______________

    ____

    ____

    ____

3. Since your Staff Exchange experience, have you had any visits or contacts from business/industry personnel?

    Yes _____ No _____

    If "Yes," what kind of contacts did you have? ______________

    ____

    ____

    How many contacts did you have? ______________________

    Is this more or less than you had before the Staff Exchange?

    _____ More
    _____ Less
    _____ About the same

4. Has your involvement in the Staff Exchange affected the placement of your graduates? (Check a-l which apply)

_____ More job opportunities for graduates
_____ Better quality job opportunities for graduates
_____ Fewer job opportunities for graduates
_____ Lower quality job opportunities for graduates
_____ No change in job opportunities for graduates

5. Has your involvement in the Staff Exchange affected the placement of your students in co-op positions? (Check all which apply)

_____ More co-op positions available
_____ Better quality co-op positions available
_____ More coordination of the co-op program
_____ Fewer co-op positions available
_____ Lower quality co-op positions available
_____ No change in co-op positions available

Instructional Planning

6. Has your involvement had an effect on the development of units of instruction?

_____ New units were developed
_____ Old units were revised
_____ Old units were dropped
_____ No effect on units of instruction

If you developed or changed any units of instruction, did you directly involve business/industry personnel?

_____ Used a lot of business/industry input
_____ Used some business/industry input
_____ Used no direct business/industry input

What new units of instruction were developed? _____________________________

____

____

What units of instruction were revised? _____________________________

____

____

How did you use business/industry input? _____________________________

____

____

7. Has your involvement had an effect on the selection and/or preparation of instructional materials?

_____ New materials have been chosen/prepared
_____ Business/industry materials have been adapted to classroom/lab/shop use
_____ Old materials have been revised
_____ No change in materials used

If you changed the materials used, did you directly involve business/industry personnel in the selection of materials?

_____ Used a lot of business/industry input
_____ Used some business/industry input
_____ Used no direct business/industry input

What new materials were developed? ______________________________

____

____

What materials were revised? ______________________________

____

____

What business/industry materials were adapted? ____________________

____

____

How did you use business/industry input? ________________________

____

____

Instructional Execution

8. Have you changed your use of field trips as an educational activity? (Check all which apply)

_____ More field trips are conducted
_____ More places are available for field trips
_____ Students can be better prepared for field trips
_____ Follow-up activities are more meaningful
_____ Fewer field trips are conducted
_____ Fewer places are available for field trips
_____ No changes in the use of field trips have taken place

9. Have you changed the ratio of group to individual instruction?

_____ More individualized instruction is now used
_____ More group instruction is now used
_____ There is a better balance of group to individual instruction
_____ There has been no change in the ratio of group to individual instruction

10. Do you now provide leadership training to the more experienced or mature students?

_____ Some training is provided
_____ Business/industry-type training is provided
_____ No leadership training is provided

Did the Staff Exchange Program have an effect on the provisions for leadership training?

_____ A great effect
_____ Some effect
_____ No effect

11. Do you now use simulation techniques in your classroom, lab, or shop?

_____ Yes, to a great extent
_____ Yes, to a moderate extent
_____ Yes, to a minor extent
_____ No simulation techniques are used

How has this changed since the Staff Exchange experience?

_____ Has changed to a great extent (more simulation)
_____ Has changed to a great extent (less simulation)
_____ Has changed to a moderate extent (more simulation)
_____ Has changed to a moderate extent (less simulation)
_____ Has changed to a minor extent (more simulation)
_____ Has changed to a minor extent (less simulation)
_____ Has not changed

12. Have you changed the ratio of lab/shop activities to classroom activities?

_____ More lab/shop activities are used
_____ More classroom activities are used
_____ A better balance of lab/shop to classroom activities is used
_____ There has been no change in the ratio of lab/shop activities to classroom activities

13. Have you changed the emphasis on basic skill development compared to specialized skill development?

_____ Basic skill development emphasized more
_____ Specialized skill development emphasized more
_____ A better balance of basic skill development to specialized skill development
_____ There has been no change in the emphasis on basic skill development compared to specialized skill development

14. Have you changed your use of audio/visual aids in the instructional program?

_____ More use of audio/visual aids
_____ Less use of audio/visual aids
_____ Better use of audio/visual aids
_____ Higher quality audio/visual aids have been developed
_____ No change in the use of audio/visual aids

If you changed the use of audio/visual aids, did you directly involve business/industry personnel in developing new aids or revising old ones?

_____ Used a lot of business/industry input
_____ Used some business/industry input
_____ Used no direct business/industry input

What audio/visual aids were developed? ______________________________

____

____

How did you use business/industry input? ____________________________

____

____

15. Have you changed the emphasis you place on the identification and use of up-to-date equipment in the occupational area?

_____ More emphasis on up-to-date equipment and uses
_____ Less emphasis on up-to-date equipment and uses
_____ Same emphasis as before on up-to-date equipment and uses

Have you obtained any additional equipment since you participated in the Staff Exchange Program?

_____ The school bought some equipment
_____ Some equipment was donated to the school
_____ No additional equipment has been obtained

If you obtained additional equipment, was the Staff Exchange experience beneficial in the attempt to obtain additional equipment? In what way?

____

____

____

16. Have you changed the emphasis you place on speed development versus accuracy development?

_____ More emphasis on speed
_____ More emphasis on accuracy
_____ A better balance between speed and accuracy
_____ No change in emphasis

If you have changed your emphasis, did you incorporate business/industry standards for speed and accuracy? In what areas?

____

____

____

Evaluation of Instruction

17. Have you changed your performance standards for manipulative skills?

_____ Better standards have been developed
_____ Better measures of performance have been developed
_____ No changes have taken place with regard to performance standards for manipulative skills

Do your performance standards and measurement devices incorporate business/industry standards and practices? How?

____

____

____

18. Have you changed your performance standards with regard to technical and related knowledge?

_____ Better standards have been developed
_____ Better measures of knowledge have been developed
_____ No changes have taken place with regard to performance standards for technical and related knowledge

19. Have you changed how you state performance objectives?

_____ Performance objectives are now being developed in written form
_____ Performance objectives have been developed in written form since the Staff Exchange experience ended
_____ Previously-developed objectives have been revised
_____ Performance objectives have been developed, but not in written form
_____ Performance objectives have not been developed

19. (Continued)

If you have developed or revised performance objectives, how closely are they related to business/industry expectations? How do you know?

____

____

____

20. Do you attempt to evaluate student attitudes?

_____ Yes, through the use of written standards
_____ Yes, through the use of unwritten standards
_____ No, student attitudes are not evaluated

If you do attempt to evaluate attitudes, do you use any of the following behaviors as measures of attitudes? Which ones?

_____ Work habits
_____ Attendance
_____ Appearance
_____ Cooperativeness
_____ Punctuality
_____ Others (please specify) _______________________

____

21. Do you attempt to formally evaluate your own teaching effectiveness?

_____ Yes, with evaluation instruments
_____ No, I do not formally evaluate my teaching effectiveness

If you do formally evaluate your teaching effectiveness, what instruments or methods are used?

_____ Student evaluations of teacher's performance
_____ Peer evaluations of teacher's performance
_____ Supervisor's evaluation of teaching performance
_____ Other (please specify) _______________________

____

Instructional Management

22. Have you attempted to improve the quality of vocational/instructional facilities available to students?

_____ Facilities have been greatly upgraded
_____ Facilities have been moderately upgraded
_____ Facilities have not changed
_____ Facilities have deteriorated slightly
_____ Facilities have deteriorated moderately
_____ Facilities have deteriorated greatly

What improvements have been made? ______________________________

____

____

What kind of deterioration has occurred? _________________________

____

____

Have you changed the layout of your classroom/lab/shop since the end of the Staff Exchange experience? In what way? Why?

____

____

____

____

23. Have you changed your methods of selection, acquiring, handling, and storing materials and equipment? In what ways? Why?

____

____

____

____

24. Have you changed the amount of safety instruction you give your students?

_____ More safety instruction than before
_____ Less safety instruction than before
_____ Same safety instruction as before

If you have not changed your safety instruction, do you feel that you are paying enough attention to safety instruction?

____

How would you rate the quality of the safety instruction you give your students?

_____ Excellent quality
_____ Better than average quality
_____ Average quality
_____ Less than average quality
_____ Poor quality

24. (Continued)

Is the safety instruction up-to-date and in line with business/industry practices? How do you know?

25. How do you rate the quality of your classroom management procedures?

_____ Better than before
_____ Worse than before
_____ Same as before

Are you satisfied with your classroom management practices? Why or why not?

26. How do you rate the quality of your lab/shop management procedures?

_____ Better than before
_____ Worse than before
_____ Same as before

Are you satisfied with your lab/shop management practices? Why or why not?

27. How do you rate the quality of your classroom/lab/shop maintenance and clean-up procedures?

_____ Better than before
_____ Worse than before
_____ Same as before

Are you satisfied with your classroom/lab/shop maintenance and clean-up procedures? Why or why not?

28. How do you rate the quality of your work station layout?

_____ Better than before
_____ Worse than before
_____ Same as before

Are you satisfied with the work station layout? Why or why not?

____

____

____

29. How do you rate the quality of your security provisions (safeguards against theft, vandalism, etc.)?

_____ Better than before
_____ Worse than before
_____ Same as before

Are you satisfied with your security provisions? Why or why not?

____

____

____

Personal and Professional Relationships

30. How do you rate the quality of your relationship with students?

_____ Better than before
_____ Worse than before
_____ Same as before

Are you satisfied with your relationship with students? If not, what are the problem areas? ___________________________________

____

____

31. How do you rate the quality of your relationship with your peers (other teachers).

_____ Better than before
_____ Worse than before
_____ Same as before

Are you satisfied with your relationship with your peers? If not, what are the problem areas? ___________________________________

____

32. How do you rate the quality of your relationship with your superiors (supervisor, department head, principal, etc.)?

_____ Better than before
_____ Worse than before
_____ Same as before

Are you satisfied with your relationship with your superiors? If not, what are the problem areas? ____

____

____

33. Do you have subordinates (people whom you supervise) other than students?

Yes _____ No _____

If you do have subordinates how do you rate the quality of your relationship with subordinates?

_____ Better than before
_____ Worse than before
_____ Same as before

Are you satisfied with your relationship with subordinates? If not, what are the problem areas? ____

____

____

34. Did you develop new occupational skills as a result of your Staff Exchange experience?

Yes _____ No _____

If "Yes," what skills did you develop? ______________________________

____

____

35. Did you develop new areas of occupational knowledge as a result of your staff experience?

Yes _____ No _____

If "Yes," what new areas of knowledge did you acquire? _______________

____

____

36. Did you learn about new types and/or uses of materials, tools, and equipment as a result of your Staff Exchange experience?

Yes _____ No _____

If "Yes," please describe the things you learned. ____________________

____

____

____

37. Were you a member of any professional organization prior to your experience in the Staff Exchange Program?

Yes _____ No _____

If "Yes," list the organizations. ______________________________

____

____

Have you joined any new professional organizations since the Staff Exchange experience?

Yes _____ No _____

If "Yes," which ones? ______________________________________

____

Have you dropped your membership in any professional organizations since the Staff Exchange experience?

Yes _____ No _____

If "Yes," which ones and why? ________________________________

____

____

38. If you are a member of one or more professional organizations, please indicate your type of involvement (check all which apply):

_____ Attendance at meetings of organizations
_____ Service on committees of organizations
_____ Service in a leadership position (officer, committee chairperson, etc.) in the organizations
_____ Read professional literature (magazines, journals, research studies, etc.)

Management of Staff Exchange Program

39. Were you properly oriented to the purposes and procedures of the Staff Exchange Program?

Yes _____ No _____

If "No," what was the problem?

_____ Too little information given
_____ Too much information given
_____ Information was too vague
_____ Information was poorly presented
_____ Other (Please be specific) ______________________________

____

____

40. Was your on-the-job experience related to your objectives?

Yes _____ No _____

If "No," in what way were they unrelated? ______________________________

____

____

41. Did the Business/Industry properly outline your duties and responsibilities?

Yes _____ No _____

If "No," what were the problems? ______________________________

____

____

42. Did you spend all your time in observation or did you get "hands-on" experience?

_____ Observation only
_____ Hands-on experience

What did you observe? ______________________________

____

____

What "hands-on" experience did you get? ______________________________

____

____

43. Did the Business/Industry person know how to relate to you (Why you were there, what you should do, etc.)?

Yes _____ No _____

If "No," what problems did this cause? ______________________________

____

44. Did the Business/Industry provide you with the opportunity to meet your objectives?

Yes _____ No _____

If "Yes," how did they help you? ______________________________

____

____

If "No," where did they fall short? ______________________________

____

____

45. With regard to the general administrative details of the Staff Exchange Program, how would you characterize the paperwork required? (Check all which apply)

_____ Too much paperwork
_____ Not enough paperwork
_____ Some paperwork necessary
_____ Most paperwork unnecessary
_____ All paperwork unnecessary
_____ Some paperwork necessary
_____ All paperwork necessary
_____ Some paperwork hard to complete
_____ Most paperwork hard to complete
_____ All paperwork hard to complete
_____ Some paperwork easy to complete
_____ Most paperwork easy to complete
_____ All paperwork easy to complete

46. With regard to follow-up procedures, did you know what was to be done at the completion of the work experience phase of the Staff Exchange experience?

Yes _____ No _____

If "No," what problems did this cause? ______________________________

____

47. Did you get any help with regard to how to make changes back in your classroom/lab/shop?

Yes _____ No _____

If "Yes," was it enough help? Yes _____ No _____

Who helped you make changes (give title) ______________________________

____

If you did not get any help or you did not get enough help, in what areas did you need help? ______________________________

____

48. Did you have sufficient time to complete your objectives during the on-the-job phase of the experience?

Yes _____ No _____

If "No," what objectives were not attained? ____________________

____

How much more time was needed? ____________________

____

49. Did anyone help you identify your objectives for the Staff Exchange Program?

Yes _____ No _____

If "Yes," who gave you help?

_____ Regular Staff Exchange contact person
_____ Teacher educator

How would you rate their help?

_____ Excellent
_____ Good
_____ Fair
_____ Poor

Did you get help in identifying objectives from anyone else?

Yes _____ No _____

If "Yes," from whom (give title)? ____________________

____

50. Were you aware of the possibility of getting college credit for the Staff Exchange experience?

Yes _____ No _____

51. Did you receive college credit? Yes _____ No _____

Was the amount of work required appropriate for the amount of credit?

_____ Yes, it was appropriate
_____ No, there was too much work required
_____ No, there was too little work required

52. Was the work required for college credit related to the improvement of instruction?

Yes _____ No _____

52. (Continued)

If "Yes," what were you required to do?

_____ Write a report or term paper on your experience
_____ Develop lesson plans or instructional modules
_____ Other (Please specify) ______________________________

____

If the work required was not related to the improvement of instruction, what was it related to? ______________________________

____

53. If you did not receive college credit, were you still required to submit a report or develop lesson plans or modules?

Yes _____ No _____

If "Yes," do you think this requirement was proper? Yes _____ No _____

Do you think the experience was useful? Yes _____ No _____

If you were not required to submit a report or develop lesson plans or modules, do you think such a requirement would be proper?

Yes _____ No _____

Do you think such an experience would be useful? Yes _____ No _____

54. How was your Business/Industry placement site identified?

_____ You identified it
_____ Your Staff Exchange contact person identified it
_____ The teacher educator identified it
_____ Other (Please specify) ______________________________

On-the-Job Activities

55. How do you rate the supervision that you got while you were on the job (in the work experience phase)?

_____ Excellent
_____ Good
_____ Fair
_____ Poor

If the supervision was only "Fair" or "Poor," what problems were caused?

____

____

55. (Continued)

How could the supervision have been improved? ______________________

____

____

56. Were you visited on the job by the teacher educator?

Yes _____ No _____

If "Yes," was the contact useful or unnecessary? Explain. ___________

____

____

If you were not visited by the teacher educator, would you have liked to have had such a visit?

Yes _____ No _____

If "Yes," why? ____

____

____

If "No," why not? ____

____

____

Business/Industry Questionnaire

INSTRUCTIONS:

This questionnaire is being mailed to all persons in Business/Industry who have participated in the staff industry exchange program.

We appreciate your participation in this Staff Exchange Program. Your help in completing the enclosed questionnaire will enable us to evaluate the program and plan activities to improve its effectiveness.

Some of the participants receiving this questionnaire will be personally interviewed. If you are selected for an interview, you will be contacted by the Staff Exchange representative in your region.

Your cooperation will help provide an objective evaluation of the Staff/Industry Exchange Program, thank you.

SURVEY OF
STAFF EXCHANGE PROGRAM OUTCOMES

The following is a list of questions pertaining to your participation in the Staff Industry Exchange Program. Please complete all items on the questionnaire.

Please complete and return to:

Jack McElroy
College of Education
45 Dickey Hall
University of Kentucky
Lexington, KY 40506

If possible, please return by May 2, 1980.

Again, thank you for taking time to complete questionnaire.

BUSINESS/INDUSTRY QUESTIONNAIRE
STAFF EXCHANGE PROGRAM

Orientation

1. How do you rate the orientation provided concerning the purpose and procedures of the Staff Exchange Project?

_____ Excellent
_____ Good
_____ Fair
_____ Poor

If you rated the orientation as "Fair" or "Poor," what were the problem areas? ______________________________

____

Was the supervisor of the Staff Exchange participant properly oriented to the program?

_____ Yes _____ No

Did you understand your role in working with the vocational educator during the on-the-job phase?

_____ Yes, I fully understand my role
_____ Yes, I had a general understanding of my role
_____ No, I was somewhat unclear about my role

Evaluation Procedure

2. How do you feel about the evaluation form used for your evaluation of the Staff Exchange experience? (Check all which apply)

_____ The form is too general
_____ The form is too specific
_____ The form is neither too general nor too specific
_____ The form is too long
_____ The form is too short
_____ The form is about the right length
_____ The form asks the right questions
_____ The form asks irrelevant questions
_____ The form is difficult to answer
_____ The form is easy to answer

Vocational Program Content

3. Do you feel that what is being taught in vocational programs is appropriate preparation for the graduates who are coming into your Business or Industry?

_____ Yes _____ No

If "No," what are the shortcomings? ______________________________

____

____

____

Do you have graduates of the local vocational education programs working for you?

_____ Yes _____ No

If "Yes," how good is their preparation in the following areas?

Technical competence (skills)

_____ Excellent
_____ Good
_____ Fair
_____ Poor

Overall job knowledge

_____ Excellent
_____ Good
_____ Fair
_____ Poor

Attitude toward work and the job

_____ Excellent
_____ Good
_____ Fair
_____ Poor

Are you now more willing to hire graduates of the vocational programs than you were before your involvement in the Staff Exchange Program?

_____ Yes _____ No

Why or why not? ______________________________________

____

____

Business/Industry Input to Schools

4. As a result of your involvement in the Staff Exchange Program, what input do you have to the school's vocational education programs?

_____ Serve on advisory committee
_____ Serve as resource person
_____ Help arrange co-op stations or experience for students
_____ Help arrange field trips
_____ Other (Please describe) ______________________________

____

____

5. Is this level of involvement more or less, or the same as before the Staff Exchange?

_____ More involvement
_____ Less involvement
_____ Same involvement

Do you feel that the Staff Exchange Program has made you more aware of what vocational education is attempting to do in the schools?

_____ Yes _____ No

Has the Staff Exchange Program benefited you and/or your company in any way? If so, in what way(s)? ______________________________

____

____

____

6. Would you be willing to serve as a resource person to help vocational educators in the following ways? (Check all which apply)

_____ Help in instructional program (by speaking to students, arranging field trips, etc.)
_____ Help in identifying needed changes in the vocational program
_____ Help design new layouts for classrooms, labs, and shops
_____ Help in rewriting the curriculum
_____ Other (Please describe) ______________________________

____

7. Are you interested in having more overall contact with the local vocational education programs?

_____ Yes _____ No

If "Yes," which of the following reasons apply? (Check all which apply)

_____ We employ the graduates of vocational programs
_____ We plan to employ graduates in the future
_____ I feel I can help in the design of the programs
_____ My company encourages me to be involved in such activities
_____ My company wants to work with the schools to provide co-op positions
_____ I enjoy working with young people
_____ I would like to do some teaching
_____ Other (Please specify) ______________________________

____

8. List any additional comments on how the Staff Exchange Program can be improved. ______________________________

____

____

____

APPENDIX B

- Educator's Questionnaire
- Administrator's Questionnaire

Educator's Questionnaire

INSTRUCTIONS:

This questionnaire is being mailed to all vocational teachers who have participated in the Staff/Industry Exchange Program.

We appreciate your participation in this Staff Exchange Program. Your help in completing the enclosed questionnaire will enable us to evaluate the program and plan activities to improve its effectiveness.

Some of the participants receiving this questionnaire will be personally interviewed. If you are selected for an interview, you will be contacted by the Staff Exchange representative in your region.

Your cooperation will help provide an objective evaluation of the Staff/Industry Exchange Program. Thank you.

SURVEY OF STAFF EXCHANGE PROGRAM OUTCOMES

The following is a list of outcomes which could result from a teacher's participation in a Staff Exchange Program. Two rating scales accompany the list of outcomes. The scale on the left allows you to signify how important these outcomes are to you as a teacher.

The scale allows you five choices ranging from "1" (Of no importance) to "5" (Of great importance). Please circle the number which corresponds to your feeling about the importance of the outcome. The scale on the right allows you to signify the extent to which you feel the Staff Exchange Program enabled you to achieve the outcomes.

Again, the rating scale allows you five choices ranging from "1" (To no extent) to "5" (To a great extent). Please circle the number which corresponds to your feeling about the extent to which the Staff Exchange Program enabled you to achieve the outcomes listed.

Please complete and return to:

Jack McElroy
College of Education
45 Dickey Hall
University of Kentucky
Lexington, KY 40506

If possible, please return questionnaire by May 2, 1980.

Again, thank you for taking time to complete the questionnaire.

DEGREE OF IMPORTANCE TO YOU AS A TEACHER					STAFF EXCHANGE		DEGREE OF ACHIEVEMENT DUE TO STAFF EXCHANGE				
Of no importance	Of little importance	Of some importance	Of considerable importance	Of great importance		PROGRAM OUTCOMES	To no extent	To little extent	To some extent	To considerable extent	To great extent
1	2	3	4	5	1.	Helps teacher increase level of manipulative skills in the occupational (vocational) area.	1	2	3	4	5
1	2	3	4	5	2.	Helps teacher increase level of technical knowledge of the occupational area.	1	2	3	4	5
1	2	3	4	5	3.	Helps teacher in revision of total vocational curriculum.	1	2	3	4	5
1	2	3	4	5	4.	Helps teacher in revision of specific vocational courses.	1	2	3	4	5
1	2	3	4	5	5.	Helps teacher in revision of daily lesson plans and/or modules.	1	2	3	4	5
1	2	3	4	5	6.	Helps teacher identify new equipment used in the occupational area.	1	2	3	4	5
1	2	3	4	5	7.	Helps teacher acquire new equipment and supplies for the classroom, lab, or shop.	1	2	3	4	5
1	2	3	4	5	8.	Helps teacher identify new uses of equipment in the occupational area.	1	2	3	4	5
1	2	3	4	5	9.	Helps teacher change the ways in which equipment is used in the classroom, lab, or shop.	1	2	3	4	5
1	2	3	4	5	10.	Helps teacher identify instructional materials used in occupational areas.	1	2	3	4	5
1	2	3	4	5	11.	Helps teacher identify facilities (rooms, fixtures, etc.) used in the occupational area.	1	2	3	4	5
1	2	3	4	5	12.	Helps teacher acquire such facilities for the classroom, lab, or shop.	1	2	3	4	5

DEGREE OF IMPORTANCE TO YOU AS A TEACHER					STAFF EXCHANGE PROGRAM OUTCOMES	DEGREE OF ACHIEVEMENT DUE TO STAFF EXCHANGE				
Of no importance	Of little importance	Of some importance	Of considerable importance	Of great importance		To no extent	To little extent	To some extent	To considerable extent	To great extent
1	2	3	4	5	13. Helps teacher improve the physical layout of equipment and facilities in the classroom, lab, or shop.	1	2	3	4	5
1	2	3	4	5	14. Helps teacher improve the maintenance of equipment and facilities of the classroom, lab, or shop.	1	2	3	4	5
1	2	3	4	5	15. Helps teacher improve security techniques and provisions in the classroom, lab, or shop.	1	2	3	4	5
1	2	3	4	5	16. Helps teacher improve safety instruction in the classroom, lab, or shop.	1	2	3	4	5
1	2	3	4	5	17. Helps teacher improve clean-up operations in the classroom, lab, or shop.	1	2	3	4	5
1	2	3	4	5	18. Helps teacher increase contact and involvement with Business/Industry personnel.	1	2	3	4	5
1	2	3	4	5	19. Helps teacher increase use of Business/Industry personnel on advisory committees and/or in classroom activities.	1	2	3	4	5
1	2	3	4	5	20. Helps teacher increase contact with Business/Industry personnel for placement of Co-op students and graduates.	1	2	3	4	5
1	2	3	4	5	21. Helps teacher increase use of field trips in the occupational program.	1	2	3	4	5
1	2	3	4	5	22. Helps teacher improve the ratio of group to individual instruction.	1	2	3	4	5

DEGREE OF IMPORTANCE TO YOU AS A TEACHER						STAFF EXCHANGE	DEGREE OF ACHIEVEMENT DUE TO STAFF EXCHANGE				
Of no importance	Of little importance	Of some importance	Of considerable importance	Of great importance		PROGRAM OUTCOMES	To no extent	To little extent	To some extent	To considerable extent	To great extent
1	2	3	4	5	23.	Helps teacher provide leadership training for advanced students.	1	2	3	4	5
1	2	3	4	5	24.	Helps teacher improve ratio of laboratory (or shop) activity to classroom activity.	1	2	3	4	5
1	2	3	4	5	25.	Helps teacher improve ratio of basic skill development to specialized skill development.	1	2	3	4	5
1	2	3	4	5	26.	Helps teacher improve techniques and increase use of audio/visual aids in the instructional program.	1	2	3	4	5
1	2	3	4	5	27.	Helps teacher improve the balance between an emphasis on speed and an emphasis on accuracy.	1	2	3	4	5
1	2	3	4	5	28.	Helps teacher establish better performance standards for technical skill areas.	1	2	3	4	5
1	2	3	4	5	29.	Helps teacher establish better performance standards for technical knowledge areas.	1	2	3	4	5
1	2	3	4	5	30.	Helps teacher establish better performance standards for related areas.	1	2	3	4	5
1	2	3	4	5	31.	Helps teacher develop better written performance objectives.	1	2	3	4	5
1	2	3	4	5	32.	Helps teacher develop better techniques for evaluating attitudes.	1	2	3	4	5
1	2	3	4	5	33.	Helps teacher develop better techniques for evaluating his or her own performance.	1	2	3	4	5

DEGREE OF IMPORTANCE TO YOU AS A TEACHER					STAFF EXCHANGE PROGRAM OUTCOMES	DEGREE OF ACHIEVEMENT DUE TO STAFF EXCHANGE				
Of no importance	Of little importance	Of some importance	Of considerable importance	Of great importance		To no extent	To little extent	To some extent	To considerable extent	To great extent
					34. Helps teacher become more involved in the following professional/technical development activities.					
1	2	3	4	5	a. Membership in professional/technical organizations.	1	2	3	4	5
1	2	3	4	5	b. Attendance at professional/technical organizational meetings.	1	2	3	4	5
1	2	3	4	5	c. Service on committees or professional/technical organizations.	1	2	3	4	5
1	2	3	4	5	d. Service in a leadership position (officer, committee chairperson, etc.) of professional/technical organizations.	1	2	3	4	5
1	2	3	4	5	e. Reading of professional/technical publications.	1	2	3	4	5
					35. Helps teacher become more involved in personal development activities, such as:					
1	2	3	4	5	a. Becoming more inquisitive about things in general.	1	2	3	4	5
1	2	3	4	5	b. Becoming more dedicated to serving students and the school.	1	2	3	4	5
1	2	3	4	5	c. Becoming more concerned with planning things well.	1	2	3	4	5
1	2	3	4	5	d. Becoming more motivated to return to school to gain additional knowledge.	1	2	3	4	5
1	2	3	4	5	e. Becoming more receptive to constructive criticism.	1	2	3	4	5
1	2	3	4	5	f. Becoming more receptive to suggestions from others.	1	2	3	4	5
1	2	3	4	5	g. Becoming more understanding about the problems of others.	1	2	3	4	5
1	2	3	4	5	h. Becoming more concerned with developing a better relationship with students.	1	2	3	4	5
1	2	3	4	5	i. Becoming more concerned with developing a better relationship with peers.	1	2	3	4	5

DEGREE OF IMPORTANCE TO YOU AS A TEACHER					STAFF EXCHANGE PROGRAM OUTCOMES	DEGREE OF ACHIEVEMENT DUE TO STAFF EXCHANGE				
Of no importance	Of little importance	Of some importance	Of considerable importance	Of great importance		To no extent	To little extent	To some extent	To considerable extent	To great extent
1	2	3	4	5	j. Becoming more concerned with developing a better relationship with superiors.	1	2	3	4	5
1	2	3	4	5	k. Becoming more concerned with developing a better relationship with subordinates.	1	2	3	4	5

Write in other outcomes that you feel are important.

Administrator's Questionnaire

INSTRUCTIONS:

This questionnaire is being mailed to all vocational administrators who have participated in the Staff/Industry Exchange Program.

We appreciate your participation in this Staff Exchange Program. Your help in completing the enclosed questionnaire will enable us to evaluate the program and plan activities to improve its effectiveness.

Some of the participants receiving this questionnaire will be personally interviewed. If you are selected for an interview, you will be contacted by the Staff Exchange representative in your region.

Your cooperation will help provide an objective evaluation of the Staff/Industry Exchange Program. Thank you.

SURVEY OF STAFF EXCHANGE PROGRAM OUTCOMES

The following is a list of outcomes which could result from an administrator's participation in a Staff Exchange Program. Two rating scales accompany the list of outcomes. The scale on the left allows you to signify how important these outcomes are to you as an administrator.

The scale allows you five choices ranging from "1" (Of no importance) to "5" (Of great importance). Please circle the number which corresponds to your feeling about the importance of the outcome. The scale on the right allows you to signify the extent to which you feel the Staff Exchange Program enabled you to achieve the outcomes.

Again, the rating scale allows you five choices ranging from "1" (To no extent) to "5" (To a great extent). Please circle the number which corresponds to your feeling about the extent to which the Staff Exchange Program enabled you to achieve the outcomes listed.

Please complete and return to:

Jack McElroy
College of Education
45 Dickey Hall
University of Kentucky
Lexington, KY 40506

If possible, please return questionnaire by May 2, 1980.

Again, thank you for taking time to complete the questionnaire.

DEGREE OF IMPORTANCE TO YOU AS AN ADMINISTRATOR							DEGREE OF ACHIEVEMENT DUE TO STAFF EXCHANGE				
Of no importance	Of little importance	Of some importance	Of considerable importance	Of great importance		STAFF EXCHANGE PROGRAM OUTCOMES	To no extent	To little extent	To some extent	To considerable extent	To great extent
1	2	3	4	5	1.	Helps administrator assist in revision of total vocational curriculum.	1	2	3	4	5
1	2	3	4	5	2.	Helps administrator identify new pieces of equipment used in various occupational areas.	1	2	3	4	5
1	2	3	4	5	3.	Helps administrator acquire new equipment and materials for the classroom, lab, or shop.	1	2	3	4	5
1	2	3	4	5	4.	Helps administrator identify facilities (rooms, fixtures, etc.) used in various occupational areas.	1	2	3	4	5
1	2	3	4	5	5.	Helps administrator improve the physical layout of equipment and facilities in the classroom, lab, or shop.	1	2	3	4	5
1	2	3	4	5	6.	Helps administrator improve security techniques and provisions in the classroom, lab, or shop.	1	2	3	4	5
1	2	3	4	5	7.	Helps administrator improve safety instruction in the classroom, lab, or shop.	1	2	3	4	5
1	2	3	4	5	8.	Helps administrator improve clean-up operations in the classroom, lab, or shop.	1	2	3	4	5
1	2	3	4	5	9.	Helps administrator increase contact and involvement with Business/Industry personnel.	1	2	3	4	5
1	2	3	4	5	10.	Helps administrator increase use of Business/Industry personnel on advisory committees and/or in classroom activities.	1	2	3	4	5

DEGREE OF IMPORTANCE TO YOU AS AN ADMINISTRATOR						STAFF EXCHANGE PROGRAM OUTCOMES	DEGREE OF ACHIEVEMENT DUE TO STAFF EXCHANGE				
Of no importance	Of little importance	Of some importance	Of considerable importance	Of great importance			To no extent	To little extent	To some extent	To considerable extent	To great extent
1	2	3	4	5	11.	Helps administrator increase contact with Business/Industry personnel for placement of graduates and/or co-op students.	1	2	3	4	5
1	2	3	4	5	12.	Helps administrator assist teacher in establishing better performance standards for technical skill areas.	1	2	3	4	5
1	2	3	4	5	13.	Helps administrator assist teacher in establishing better performance standards for technical knowledge areas.	1	2	3	4	5
1	2	3	4	5	14.	Helps administrator assist teacher in establishing better performance standards for related areas.	1	2	3	4	5
1	2	3	4	5	15.	Helps administrator assist teacher in developing better techniques for evaluating attitudes.	1	2	3	4	5
1	2	3	4	5	16.	Helps administrator develop better techniques for evaluating his or her own performance.	1	2	3	4	5
					17.	Helps administrator become more involved in the following professional/technical development activities:					
1	2	3	4	5		a. Membership in professional/technical organization.	1	2	3	4	5
1	2	3	4	5		b. Attendance at professional/technical organizational meetings.	1	2	3	4	5
1	2	3	4	5		c. Service on committees of professional/technical organizations.	1	2	3	4	5

DEGREE OF IMPORTANCE TO
YOU AS AN ADMINISTRATOR

DEGREE OF ACHIEVEMENT
DUE TO STAFF EXCHANGE

Of no importance	Of little importance	Of some importance	Of considerable importance	Of great importance	STAFF EXCHANGE PROGRAM OUTCOMES	To no extent	To little extent	To some extent	To considerable extent	To great extent
1	2	3	4	5	d. Service in a leadership position (officer, committee chairperson, etc.) of professional/technical organizations.	1	2	3	4	5
1	2	3	4	5	e. Reading of professional/ technical publications.	1	2	3	4	5
					20. Helps administrator become more involved in personal development activities, such as:					
1	2	3	4	5	a. Becoming more inquisitive about things in general.	1	2	3	4	5
1	2	3	4	5	b. Becoming more dedicated to serving students and the school.	1	2	3	4	5
1	2	3	4	5	c. Becoming more concerned with planning things well.	1	2	3	4	5
1	2	3	4	5	d. Becoming more motivated to return to school to gain additional knowledge.	1	2	3	4	5
1	2	3	4	5	e. Becoming more receptive to constructive criticism.	1	2	3	4	5
1	2	3	4	5	f. Becoming more receptive to suggestions from others.	1	2	3	4	5
1	2	3	4	5	g. Becoming more understanding about the problems of others.	1	2	3	4	5
1	2	3	4	5	h. Becoming more concerned with developing a better relationship with students.	1	2	3	4	5
1	2	3	4	5	i. Becoming more concerned with developing a better relationship with peers.	1	2	3	4	5
1	2	3	4	5	j. Becoming more concerned with developing a better relationship with supervisors.	1	2	3	4	5
1	2	3	4	5	k. Becoming more concerned with developing a better relationship with subordinates.	1	2	3	4	5

Write in other outcomes that you feel are important.

APPENDIX C

- Response Distribution From the Educator's Questionnaire

RESPONSE DISTRIBUTION FROM EDUCATOR'S QUESTIONNAIRE (PERCENTAGES)
(N=456)

Statement	Importance					Extent of Attainment				
	Of no importance	Of little importance	Of some importance	Of cons. importance	Of great importance	To no extent	To little extent	To some extent	To cons. extent	To great extent
1. Helps teacher increase level of manipulative skills in the occupational (vocational) area.	1	3	20	35	39	3	4	33	36	22
2. Helps teacher increase level of technical knowledge of the occupational area.	1	2	5	29	61	1	3	17	43	34
3. Helps teacher in revision of total vocational curriculum.	2	7	32	30	28	3	12	41	26	15
4. Helps teacher in revision of specific vocational courses.	3	6	20	34	34	4	8	32	31	22
5. Helps teacher in revision of daily lesson plans and/or modules.	2	10	36	26	23	5	15	39	22	16
6. Helps teacher identify new equipment used in the occupational area.	0	2	8	20	67	1	3	14	28	50
7. Helps teacher acquire new equipment and supplies for the classroom, lab, or shop.	6	13	24	28	27	17	18	30	18	15

RESPONSE DISTRIBUTION FROM EDUCATOR'S QUESTIONNAIRE (Continued)

Statement	Importance					Extent of Attainment				
	Of no importance	Of little importance	Of some importance	Of cons. importance	Of great importance	To no extent	To little extent	To some extent	To cons. extent	To great extent
8. Helps teacher identify new uses of equipment in the occupational area.	1	6	17	28	45	4	9	24	30	30
9. Helps teacher change the ways in which equipment is used in the classroom, lab, or shop.	3	12	24	36	27	7	17	34	23	17
10. Helps teacher identify instructional materials used in occupational areas.	3	7	27	31	30	5	11	30	30	22
11. Helps teacher identify facilities (rooms, fixtures, etc.) used in the occupational area.	7	11	30	24	25	10	15	33	23	17
12. Helps teacher acquire such facilities for the classroom, lab, or shop.	10	18	32	25	13	22	25	34	8	7
13. Helps teacher improve the physical layout of equipment and facilities in the classroom, lab, or shop.	9	13	31	31	14	17	19	38	15	9
14. Helps teacher improve the maintenance of equipment and facilities of the classroom, lab, or shop.	9	16	32	24	17	16	25	34	15	7
15. Helps teacher improve security techniques and provisions in the classroom, lab, or shop.	16	21	28	20	13	25	26	28	13	6

RESPONSE DISTRIBUTION FROM EDUCATOR'S QUESTIONNAIRE (Continued)

Statement	Importance					Extent of Attainment				
	Of no importance	Of little importance	Of some importance	Of cons. importance	Of great importance	To no extent	To little extent	To some extent	To cons. extent	To great extent
16. Helps teacher improve safety instruction in the classroom, lab, or shop.	6	13	26	21	32	13	17	31	21	17
17. Helps teacher improve clean-up operations in the classroom, lab, or shop.	16	18	29	19	16	27	24	26	15	7
18. Helps teacher increase contact and involvement with Business/Industry personnel.	0	0	6	21	71	0	0	10	29	58
19. Helps teacher increase use of Business/Industry personnel on advisory committees and/or in classroom activities.	1	1	9	25	62	3	4	14	25	51
20. Helps teacher increase contact with Business/Industry personnel for placement of co-op students and graduates	3	3	9	24	59	6	6	16	24	45
21. Helps teacher increase use of field trips in the occupational program.	6	8	25	27	32	11	14	26	18	28
22. Helps teacher improve the ratio of group to individual instruction.	10	19	34	19	15	22	29	28	11	7
23. Helps teacher provide leadership training for advanced students.	7	9	25	29	30	13	14	30	25	15

RESPONSE DISTRIBUTION FROM EDUCATOR'S QUESTIONNAIRE (Continued)

Statement	Importance					Extent of Attainment				
	Of no importance	Of little importance	Of some importance	Of cons. importance	Of great importance	To no extent	To little extent	To some extent	To cons. extent	To great extent
24. Helps teacher improve ratio of laboratory (or shop) activity to classroom activity.	6	14	29	33	15	15	19	33	22	8
25. Helps teacher improve ratio of basic skill development to specialized skill development.	5	5	28	33	26	15	10	34	23	15
26. Helps teacher improve techniques and increase use of audio/visual aids in the instructional program.	9	13	29	27	19	20	23	32	13	10
27. Helps teacher improve the balance between an emphasis on speed and an emphasis on accuracy.	4	8	19	33	34	8	14	27	27	21
28. Helps teacher establish better performance standards for technical skill areas.	3	3	13	39	39	5	8	23	36	25
29. Helps teacher establish better performance standards for technical knowledge areas.	2	3	12	43	37	4	7	25	41	21
30. Helps teacher establish better performance standards for related areas.	4	5	25	38	26	7	11	33	32	14
31. Helps teacher develop better written performance objectives.	8	8	32	27	22	17	15	33	21	11

RESPONSE DISTRIBUTION FROM EDUCATOR'S QUESTIONNAIRE (Continued)

Statement	Importance					Extent of Attainment				
	Of no importance	Of little importance	Of some importance	Of cons. importance	Of great importance	To no extent	To little extent	To some extent	To cons. extent	To great extent
32. Helps teacher develop better techniques for evaluating attitudes.	5	8	20	34	31	11	14	27	31	15
33. Helps teacher develop better techniques for evaluating his or her own performance.	2	7	17	35	37	4	10	33	29	22
34. Helps teacher become more involved in the following professional/technical development activities:										
a. Membership in professional/technical organizations.	17	12	24	27	17	31	19	25	14	8
b. Attendance at professional/technical organizational meetings.	14	12	25	26	19	27	23	24	15	10
c. Service on committees or professional/technical organizations.	15	11	32	21	19	28	23	26	13	7
d. Service in a leadership position (officer, committee chairperson, etc.) of professional/technical organizations.	16	15	31	20	16	31	22	26	11	7
e. Reading of professional/technical publications.	8	8	22	28	31	18	16	24	26	14

RESPONSE DISTRIBUTION FROM EDUCATOR'S QUESTIONNAIRE (Continued)

Statement	Importance					Extent of Attainment				
	Of no importance	Of little importance	Of some importance	Of cons. importance	Of great importance	To no extent	To little extent	To some extent	To cons. extent	To great extent
35. Helps teacher become more involved in personal development activities, such as:										
a. Becoming more inquisitive about things in general.	4	4	19	36	34	7	10	27	28	26
b. Becoming more dedicated to serving students and the school.	4	3	14	35	41	10	9	21	31	26
c. Becoming more concerned with planning things well.	4	3	14	37	40	9	7	26	33	23
d. Becoming more motivated to return to school to gain additional knowledge.	5	5	19	28	41	12	8	27	24	27
e. Becoming more receptive to constructive criticism.	5	7	19	32	35	12	11	30	22	22
f. Becoming more receptive to suggestions from others.	4	5	14	33	41	9	10	22	28	28
g. Becoming more understanding about the problems of others.	3	2	18	31	43	8	7	31	27	24
h. Becoming more concerned with developing a better relationship with students.	5	2	16	29	45	10	9	26	32	21
i. Becoming more concerned with developing a better relationship with peers.	5	3	18	29	43	10	11	26	24	27

RESPONSE DISTRIBUTION FROM EDUCATOR'S QUESTIONNAIRE (Continued)

Statement	Importance					Extent of Attainment				
	Of no importance	Of little importance	Of some importance	Of cons. importance	Of great importance	To no extent	To little extent	To some extent	To cons. extent	To great extent
j. Becoming more concerned with developing a better relationship with superiors.	5	2	19	31	41	12	8	25	28	24
k. Becoming more concerned with developing a better relationship with subordinates.	5	4	20	30	38	13	10	28	24	23

APPENDIX D

- Computation and Classification of Quintiles for Educator Responses on the Importance and Extent Scales

COMPUTATION AND CLASSIFICATION OF QUINTILES ON THE IMPORTANCE SCALE FOR EDUCATORS

Quintile Classification	Raw Score	Frequency	Cumulative Frequency	Computation of Quintiles
K_1	457	1	49	$P_{20} = L + \frac{np\text{-}cumf}{f} (W)$ $= 318.5 + \frac{9.8-9.0}{1} (4)$ $= 318.5 + .8 (4)$ $= 318.5 + 3.2$ $= 321.7$
	443	1	48	
	441	1	47	
	440	1	46	
	427	1	45	
	402	1	44	
	401	2	43	
	400	2	41	
K_2	399	2	39	$P_{40} = L + \frac{np\text{-}cumf}{f} (W)$ $= 354.5 + \frac{19.6-19}{1} (3)$ $= 354.5 + .6 (3)$ $= 354.5 + 1.8$ $= 356.3$
	398	1	37	
	397	1	36	
	396	1	35	
	395	1	34	
	392	1	33	
	389	1	32	
	383	2	31	
K_3	381	1	29	$P_{60} = L + \frac{np\text{-}cumf}{f} (W)$ $= 381.5 + \frac{29.4-29}{2} (2)$ $= 381.5 + .2$ $= 381.5 + .4$ $= 381.9$
	379	2	28	
	378	1	26	
	372	3	25	
	371	1	22	
	365	1	21	
	357	1	20	
K_4	354	1	19	$P_{80} = L + \frac{np\text{-}cumf}{f} (W)$ $= 399.5 + \frac{39.2-39}{2} (1)$ $= 399.5 + .2/2 (1)$ $= 399.5 + .1$ $= 399.6$
	351	1	18	
	349	1	17	
	341	1	16	
	340	1	15	
	338	1	14	
	333	1	13	
	328	1	12	
	325	1	11	
	322	1	10	
K_5	318	1	9	
	312	2	8	
	307	1	6	
	306	1	5	
	301	1	4	
	299	1	3	
	295	1	2	
	287	1	1	

COMPUTATION AND CLASSIFICATION OF QUINTILES ON THE EXTENT SCALE FOR EDUCATORS

Quintile Classification	Raw Score	Frequency	Cumulative Frequency
	436	1	49
	411	1	48
	408	1	47
	400	1	46
K_1	487	1	45
	364	1	44
	362	1	43
	359	1	42
	350	2	41
	349	1	39
	348	1	38
	347	2	37
	345	1	35
	343	1	34
K_2	341	1	33
	340	1	32
	339	1	31
	335	1	30
	330	1	29
	329	2	28
	328	1	26
K_3	326	1	25
	322	1	24
	320	2	23
	319	1	21
	316	1	20
	308	1	19
	307	1	18
	306	1	17
	304	1	16
K_4	296	1	15
	285	1	14
	280	1	13
	274	1	12
	264	1	11
	263	1	10
	260	1	9
	255	1	8
	248	1	7
	243	2	6
	241	1	4
	240	1	3
	239	1	2
	232	1	1

Computation of Quintiles

$$P_{20} = L + \frac{np\text{-}cumf}{f} (W)$$

$$= 260.5 + \frac{9.8-9.0}{1} (3)$$

$$= 260.5 + (.8)(3)$$
$$= 260.5 + 2.4$$
$$= 262.9$$

$$P_{40} = L + \frac{np\text{-}cumf}{f} (W)$$

$$= 308.5 + \frac{19.6-19}{1} (8)$$

$$= 308.5 + (.6)(8)$$
$$= 308.5 + 4.8$$
$$= 313.3$$

$$P_{60} = L + \frac{np\text{-}cumf}{f} (W)$$

$$= 330.5 + \frac{29.4-29}{1} (5)$$

$$= 330.5 + .4 (5)$$
$$= 330.5 + 2$$
$$= 332.5$$

$$P_{80} = L + \frac{np\text{-}cumf}{f} (W)$$

$$= 349.5 + \frac{39.2-39}{2} (1)$$

$$= 349.5 + .2/2 (1)$$
$$= 349.5 + .1$$
$$= 349.6$$

APPENDIX E

- Response Distribution From the Administrator's Questionnaire

RESPONSE DISTRIBUTION FROM ADMINISTRATOR'S QUESTIONNAIRE (PERCENTAGES)
(N=23)

	Importance					Extent of Attainment				
Statement	Of no importance	Of little importance	Of some importance	Of cons. importance	Of great importance	To no extent	To little extent	To some extent	To cons. extent	To great extent
1. Helps administrator assist in revision of total vocational curriculum.	0	0	15	52	31	0	4	27	40	27
2. Helps administrator identify new pieces of equipment used in various occupational areas.	0	5	21	21	52	10	21	21	31	15
3. Helps administrator acquire new equipment and materials for the classroom, lab, or shop.	14	23	28	25	4	26	15	21	26	10
4. Helps administrator identify facilities (rooms, fixtures, etc.) used in various occupational areas.	5	5	26	42	21	10	15	31	26	15
5. Helps administrator improve the physical layout of equipment and facilities in the classroom, lab, or shop.	5	5	42	36	10	15	15	36	21	10
6. Helps administrator improve security techniques and provisions in the classroom, lab, or shop.	15	10	42	26	5	36	5	36	21	0
7. Helps administrator improve safety instruction in the classroom, lab, or shop.	5	10	21	42	21	15	21	15	36	10

RESPONSE DISTRIBUTION FROM ADMINISTRATOR'S QUESTIONNAIRE (Continued)

Statement	Importance					Extent of Attainment				
	Of no importance	Of little importance	Of some importance	Of cons. importance	Of great importance	To no extent	To little extent	To some extent	To cons. extent	To great extent
8. Helps administrator improve clean-up operations in the classroom, lab, or shop.	15	10	42	26	5	26	21	26	21	5
9. Helps administrator increase contact and involvement with Business/Industry personnel.	0	0	15	10	73	0	0	31	15	52
10. Helps administrator increase use of Business/Industry personnel on advisory committees and/or in classroom activities.	5	5	0	36	52	10	5	5	36	42
11. Helps administrator increase contact with Business/ Industry personnel for placement of graduates and/or co-op students.	10	0	15	26	47	21	10	10	26	31
12. Helps administrator assist teacher in establishing better performance standards for technical skill areas.	0	0	21	52	26	0	10	31	47	10
13. Helps administrator assist teacher in establishing better performance standards for technical knowledge areas.	0	10	15	42	36	5	15	15	47	15
14. Helps administrator assist teacher in establishing better performance standards for related areas.	0	5	15	57	21	5	15	26	36	15

RESPONSE DISTRIBUTION FROM ADMINISTRATOR'S QUESTIONNAIRE (Continued)

Statement	Importance					Extent of Attainment				
	Of no importance	Of little importance	Of some importance	Of cons. importance	Of great importance	To no extent	To little extent	To some extent	To cons. extent	To great extent
15. Helps administrator assist teacher in developing better techniques for evaluating attitudes.	0	11	5	44	38	5	16	16	38	22
16. Helps administrator develop better techniques for evaluating his or her own performance.	0	0	15	42	42	0	10	15	36	36
17. Helps administrator become more involved in the following professional/technical development activities:										
a. Membership in professional/technical organization.	0	20	30	15	35	15	21	36	15	10
b. Attendance at professional/technical organizational meetings.	0	15	26	31	26	5	31	26	20	15
c. Service on committees of professional/technical organizations.	0	15	26	21	36	10	21	26	31	10
d. Service in a leadership position (officer, committee chairperson, etc.) of professional/ technical organizations.	0	16	22	38	22	11	22	33	22	11
e. Reading of professional/technical publications.	0	11	27	38	22	5	22	38	27	5

RESPONSE DISTRIBUTION FROM ADMINISTRATOR'S QUESTIONNAIRE (Continued)

Statement	Importance					Extent of Attainment				
	Of no importance	Of little importance	Of some importance	Of cons. importance	Of great importance	To no extent	To little extent	To some extent	To cons. extent	To great extent
18. Helps administrator become more involved in personal development activities, such as:										
a. Becoming more inquisitive about things in general.	0	0	16	50	33	0	5	27	38	27
b. Becoming more dedicated to serving students and the school.	5	0	11	33	50	5	5	16	61	11
c. Becoming more concerned with planning things well.	0	5	5	33	55	0	11	11	61	16
d. Becoming more motivated to return to school to gain additional knowledge.	0	11	5	33	50	5	11	27	44	11
e. Becoming more receptive to constructive criticism.	0	11	27	16	44	0	16	50	16	16
f. Becoming more receptive to suggestions from others.	0	5	11	44	38	0	5	38	38	16
g. Becoming more understanding about the problems of others.	0	0	5	44	50	0	0	33	33	33
h. Becoming more concerned with developing a better relationship with students.	0	5	16	44	33	5	11	38	38	5
i. Becoming more concerned with developing a better relationship with peers.	0	0	16	44	38	5	5	33	38	16

RESPONSE DISTRIBUTION FROM ADMINISTRATOR'S QUESTIONNAIRE (Continued)

Statement	Importance					Extent of Attainment				
	Of no importance	Of little importance	Of some importance	Of cons. importance	Of great importance	To no extent	To little extent	To some extent	To cons. extent	To great extent
j. Becoming more concerned with developing a better relationship with supervisors.	0	5	16	33	44	11	11	27	38	11
k. Becoming more concerned with developing a better relationship with subordinates.	0	5	11	27	55	5	11	27	27	27

APPENDIX F

- Computation and Classification of Quintiles For Administrator Responses on the Importance and Extent Scales

COMPUTATION AND CLASSIFICATION OF QUINTILES ON THE IMPORTANCE SCALE FOR ADMINISTRATORS

Quintile	Raw Score	Frequency	Cumulative Frequency	Computation of Quintiles
K_1	450	1	32	$Pi = L + \frac{np-cumf}{f}(W)$
	441	1	31	
	432	1	30	
	426	1	29	
	423	1	28	
	420	1	27	
K_2	419	2	26	$P_{20} = 361.5 + \frac{6.4-6.0}{1}(1)$ $= 361.9$
	417	1	24	
	414	1	23	
	413	2	22	
	410	1	20	
K_3	409	1	19	$P_{40} = 377.5 + \frac{12.8-12.0}{1}(10)$ $= 385.5$
	403	1	18	
	401	1	17	
	399	1	16	
	394	1	15	
	388	1	14	
	387	1	13	
K_4	377	1	12	$P_{60} = 409.5 + \frac{19.2-19}{1}(1)$ $= 409.7$
	372	1	11	
	366	1	10	
	365	2	9	
	362	1	7	
K_5	361	1	6	$P_{80} = 417.5 + \frac{25.6-24}{2}(2)$ $= 419.1$
	360	1	5	
	335	1	4	
	290	2	3	
	264	1	1	

COMPUTATION AND CLASSIFICATION OF QUINTILES ON THE EXTENT SCALE FOR ADMINISTRATORS

Quintile	Raw Score	Frequency	Cumulative Frequency	Computation of Quintiles
	413	1	32	
	396	1	31	$P_{20} = 287.5 + \frac{6.4-5}{2}(9)$
K_1	389	1	30	
	385	1	29	$= 287.5 + .7\ (9)$
	384	1	28	$= 287.5 + 6.3$
	379	2	27	$= 293.8$
	378	1	25	
	362	2	24	$P_{40} = 318.5 + \frac{12.8-12}{1}(1)$
K_2	356	1	22	
	351	1	21	$= 318.5 + .8$
	347	1	20	$= 319.3$
	343	1	19	
	339	1	18	$P_{60} = 343.5 + \frac{19.2-19}{1}(4)$
K_3	332	1	17	
	330	1	16	$= 343.5 + .8$
	326	1	15	$= 344.3$
	321	1	14	
	319	1	13	
	318	1	12	$P_{80} = 378.5 + \frac{25.6-25}{2}(1)$
K_4	314	1	11	
	312	1	10	$= 378.5 + .3$
	304	1	9	$= 378.8$
	300	1	8	
	296	2	7	
	287	1	5	
	275	1	4	
K_5	273	1	3	
	255	1	2	
	238	1	1	